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# East Europe Report

## ECONOMIC AND INDUSTRIAL AFFAIRS

### No. 2053

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# PROBLEMS IN INCREASING EXPORTS, REDUCING IMPORTS

Tirana PROBLEME EKONOMIKE in Albanian No 2, Apr-Jun 80 pp 71-78

[Article by Hysen Kucani, Kostandin Kristo and Niqifor Aliko: "Some Problems Concerning the Increase of Exports, the Reduction of Imports and the Improvement of the Effectiveness of Foreign Trade"]

## I

[Text] The development and continuous invigoration of the economy on the basis of the principle of relying on one's own forces have led to the increase in the social product and have created favorable conditions for increasing exports and reducing imports and for developing our foreign trade with higher effectiveness.

Despite the fierce imperialist-revisionist blockade and the betrayal of the Chinese social-imperialists, our foreign trade has scored increases. Our country, on the basis of the principles of Marxism-Leninism, today is developing its trade with about 50 countries of the world, and improvements have been made in the trade structure. The number of articles for export has been increased, the level of their processing has been improved and the demands for our products have increased in international markets. Many of the goods that were imported in the past now are being produced in the country, satisfying better and better the needs of the population and of the economy. In 1979, compared to 1976, the export of important goods, such as mineral ores and chrome concentrates have considerably increased; we exported about six times more gasoline, about three times more electric energy and about 50 percent more tobacco and so forth.

However, in order to further increase the quantity of goods for export and in order that they may be produced on schedule, in the proper quantity, quality and assortments, the following tasks emerge:

1. In the present conditions, more than ever, it is necessary that the struggle for increasing exports, on a priority basis, be correctly understood. Special attention must be given to increasing the production of those articles which constitute the foundation of our exports, without neglecting the other articles which also are important resources for increasing revenues in hard

currency, devoting more attention to the development of the range of those articles which are in demand in foreign markets and for which the raw materials are found in the country.

An important role in our exports is played by mineral ores, fuels and metals, such as chrome ores and concentrates, ferrochromium, ferronickel ores, pyrite ores and concentrates, petroleum by-products, electric energy, copper and copper wires and so forth. Therefore, as stressed by the Seventh Plenum of the Central Committee of the Albanian Workers Party, the improvement of the organizational and management work and of the research and scientific work, and the increase of efforts to raise the production of these articles rapidly, through the best utilization of the existing resources and of the measures for discovering resources, constitute some of the most important tasks entrusted to the workers, specialists and cadres that work and manage these important sectors of the economy. The increase of production in mines will be achieved mainly by assuring a higher level of mechanization and through the most complete utilization of the production capacities of plants for the enrichment and processing of mineral ores and the building of new plants.

In regard to increasing the export of fresh tomatoes and vegetables, greenhouses have been built and favorable conditions have been created to assure early products and high yields. This has made it possible for their production and export to be increased continually. However, yields and early deliveries have not been achieved in some units which are not utilizing the good experience of many other units.

Medicinal and ethereal oil plants and spontaneous flora crops have an important value as articles for export. Implementing the recommendations for making the inventory of the areas with medicinal plants and for creating special work brigades in agricultural cooperatives, brigades which will deal with their cultivation and collecting, it is appropriate to make all the efforts possible in order to increase their export, because, for example, with 1 ton of sage it is possible to buy 25 tons of coking coal.

The export of vegetables and dried fruits can be increased more rapdily by better utilizing agricultural reserves and capacities in the existing plants and, in some cases, by also increasing their cultivation.

In addition to increasing the export of traditional articles, opportunities have been created to appear in foreign markets with other articles which so far have not been evaluated, but which are in demand in these markets at quite profitable prices. Marble scraps in the form of crushed stones [Albanian words: cakullit], which it was thought, could not be exported, now are sold at 50 dollars a ton. The naphtha coke, too, which it was thought was not in demand is sold in free currency markets at 50 dollars a ton. There also are great demands for sea salt; however, greater efforts are required to implement the recommendations that have been given in order to appear in foreign markets with mineral ores such as the bauxites, nickel silicate, quartz, olivenites, volcanic glass, dolomites, asbestos, and magnesites and so forth, for which we also have demands.

2. The regular tempo of products for export is an essential requirement for achieving the established objectives. This tempo is required for each month and for each 3-month period; but, in 1979, in some cases, there were irregularities. There were enterprises which in December produced five times more goods for export than in January. Such a tempo not only creates difficulties in the fulfillment of the export plan, but also creates problems for providing hard currency funds in time and in a proportional manner during the whole year, becoming an obstacle to the import of goods on schedule, goods which are needed by our economy every day. Also, nonexisting problems are created in regard to the conclusion and execution of contracts, the assurance of the means of transportation, the storing of goods for export and the preservation of their quality.

3. Improvement of quality of goods for export and their production, in accordance with the requirements of foreign trade, is an important resource for increasing revenues in hard currency from exports. The increase of the volume of exports cannot be detached from the struggle and efforts to improve the quality. Attention to quality must, first of all, be concentrated on the basic articles, on mineral ores, especially chrome ore, in which a radical improvement is required in order to increase the assurance of selling it and to raise its value, by preserving it very carefully in the mines, by grading it and by preventing stones and inert materials from getting into it, by guaranteeing that the dust content is as low as possible and so forth.

The quality of tobacco and cigarettes for export is also important. There is a great competition in these articles in international markets. The hard currency revenues for 1 ton of tobacco of second quality are about twice as high as for those of fourth quality, five times as high as for those of fifth quality and six times as high as for those of sixth quality. There are cases when, in certain units, although the production and the quality of tobacco have been increased, the revenues achieved have been lower because of bad quality; therefore, this problem must remain in the center of attention of the production units and of their leadership organs. The reduction of the quality of tobacco in some units has occurred because of the following causes: the deterioration of seeds; the failure to carry out agro-technical services properly; the failure to assure the material base; the use of chemical fertilizer indiscriminately and in incorrect proportion with organic fertilizer; and the failure to pick and handle the tobacco in accordance with technical requirements. Of decisive importance in the production of tobacco, in addition to the varieties and quality of tobacco, is the work for the preparation of tobacco blends and for hardening, mixing, and packaging the tobacco because, it has happened that a lot of cigarettes has lost its real value simply because the cigarettes were not properly packaged or because the cartons were crushed during transportation.

The problems of quality are linked with a number of ideological, technical, technological and organizational factors. They require the coordination of party work with the work of leadership cadres and specialists in the enterprises in order to explain these problems to workers and, on this basis, to increase attention, responsibility and mobilization so as to increase production and, especially to improve tobacco quality so that the label "Made in Albania" is in a position to break through blockades and encirclements, to be in demand everywhere, and to raise higher and higher the good name of Albanian products.

4. The raising of the level of processing goods for export constitutes one of the most important resources for increasing their value and for increasing hard currency revenues. In executing the tasks assigned by the Seventh Party Congress and the repeated recommendations of the party, the level of the processing of goods for export has been improved from year to year. In this field, an important role is played by the enrichment and processing of minerals.

The copper processing in the country is of great interest. By producing wires and cables, the value increases more than 80 percent; while, from the production of thin and very thin wires, hard currency revenues increase two-three times.

The deep processing of petroleum has opened new prospects for this industrial branch both for satisfying the needs of the country and for export. The increase in the processing of food products and of alcoholic beverages is also of interest. Noticeable progress has been made in this field; but, it is not sufficient, when it is known that the reserves are great. The packaging of canned tomato sauce and of other articles in kilogram containers greatly increases the price and value of the product in foreign markets. Nevertheless, there are cases when, for example, we export unbottled wine, while we know that the price of bottled wine is about 1.5 times higher. Therefore, it is essential for the production enterprises, the executive committees and departments to understand and properly execute the party recommendation that we must continually increase the level of processing of our export goods, considering it as one of the important conditions for developing the economy and for increasing profits from foreign trade and for improving its effectiveness.

## II

With the comprehensive development of our economy, along with increasing production and satisfying, better and better, the needs of the economy with domestic products, the demands for importing some articles--articles which under established conditions and in specific moments are not provided in the country--are also increased. Therefore, in accordance with the needs of the economy, in the future, too, along with our exports, we will also import those articles which are essential to the development of the economy and to the defense of the country.

Important tasks are assigned to the organs using imported goods for increasing their efforts to reduce the use of imports, through the reduction of raw materials and of other materials, by reducing consumption norms and by applying studied technical and scientific norms which assure their use sparingly.

However, to reduce imports, the tasks, ways and possibilities are very great. The study and research work and the technical and scientific revolution must lead to the programming of measures; they must aim at solving the technical and technological problems of production that make it possible to replace raw materials and other materials, which are expensive, with less expensive ones, struggling for higher effectiveness, such as the use of synthetic materials and of new technological processes and the extension of precision castings and so forth. Along with these things, synthetic fibres will be introduced more rapidly in the textile industry, the artificial leathers, in the shoe industry and plastic raw materials, the mechanical and metallic products and in household equipment.

Also, noticeable savings can be assured in imports if the replacement of some ready-made goods with semi-processed goods or raw materials is given proper consideration. Thus, for example, in the place of some mixtures of non-ferrous metals we should import separate elements or in the place of offset paper, cellophane and aluminum foil we should import only the pulp and do the processing in the country.

When we say to cut down and reduce imports, in the first place, it is important to correctly understand the content of this requirement. If you shorten the list of the goods that are imported, for example, if you remove 60 percent of the names of goods that are listed, in this case, you may have shortened the list of imports but not reduced the volume of imports, because, all those "names" which you may have removed may represent only 10-15 percent of the value of the entire list of imports. Therefore, in struggling to reduce imports it is important, first of all, to deal with and stop those main articles which occupy a great piece in expenditures for exports, such as, for example, coking coal, the various metals, soldering electrodes, steel lines, refractory materials, cotton, natural and synthetic leather and so forth. By importing circular pieces of steel without many layers of thickness, so that the latter may be produced in the country, it is possible to buy more steel at profitable prices. Also, it is possible and must be possible to handle, in the country, the production of rail shifts for railroads because the possibilities for this exist. These articles are important for the economy and are expensive in foreign markets. As we have the raw material, it is possible to organize, in the country, the production of rolled copper, such as copper lines, pipes and sheets, by emulating the nail and bolt plant in Kavaje which has all these costly things which are not imported from abroad anymore. Also, there is no reason to import such articles as quartz sands, felspar, barite or perlite sands, because, the raw materials for their production exist in the country. The nomenclature of machines and equipment produced in the country is constantly increasing, because, a great deal of work is being done for this, and the possibilities for it are great; and, for these things, too, there are reserves, which can be used by expanding and raising, to a much higher level, study and design work, specialization, cooperation and the technical and scientific revolution.

In regard to spare parts, as the party has continually stressed, a special evaluation is required. Their production in the country is essential, because, first of all, we must assure the complete utilization of machines and equipment that we have and also because of the fact that they are of different types and of many kinds and are found with difficulty in foreign markets and are very expensive. Under these conditions, not only their production in the country, but also their repair and rejuvenation, are essential and effective for the economy.

The increased profitability export goods sets forth the need for the problems of their cost and prices to be known correctly, both by the organs and workers in foreign trade and by those in production. Of course, the main attention must be given to the basic articles for export, without neglecting the other products, which also have their own importance.

The party has taken important measures for increasing exports. The many projects, such as plants and workshops and lines and units, that are being built every year, also produce for export. However, when their construction is not completed by established deadlines, imports are not reduced and exports are not increased, because, it is calculated that, in the case of one project that is put into operation 1 month behind schedule, hundreds of thousands and even millions of dollars are lost. Of course, the failure to utilize the machines and equipment that are imported from abroad with hard currency damages the entire economy and the export tasks are also affected and the import funds are incorrectly frozen.

As a result of the expansion of the general crisis that has taken over the capitalist-revisionist world, the situation of prices has become a very unstable phenomenon. It gets involved with many economic, and sometimes speculative, factors. Therefore, the knowledge of this situation and its utilization must be considered as a serious problem of great importance for all workers. For example, satisfactory revenues are obtained from vegetables only if establshed tasks for their production and early delivery are fulfilled. However, while greenhouse space has been increased every year, early delivery in some units has been reduced. This phenomenon, no matter now partial it is, leads to the reduction of hard currency revenues per unit of production. On the other hand, since in heated greenhouses the main expenditure is for fuel, it is necessary that less costly heating systems be designed and built, using inexpensive energies and solid fuel, and also using them with the most scientific and strict system of savings.

The knowledge and exploitation of the situation in world markets is the main link on which the supplying of imported goods at most favorable prices depends. As a result of competition and other factors, the prices of imports move in the majority of the cases, in accordance with demands and offers; however, there are many other and very different factors, from seasonality of the product and the use of goods to the urgency of demands which, sometimes, have also caused disturbing problems. Therefore, as the party has continually recommended, it is necessary for every economic enterprise and unit to take measures, in an organized and planned manner, in regard to the reserves for the supply of raw materials and other materials so as to avoid cases of urgent demands which, even, when they are satisfied, are satisfied with great expenditures and with many difficulties.

In regard to imported goods, attention must be shown by the users; they must control the quality and other characteristics included in the contracts, because, it has happened that goods have been delivered with quality indicators much lower, even the weight of the standard units has been less than that indicated in the label, thus, causing great losses to the economy.

The increase of exports, the reduction of imports and the improvement of the effectiveness of foreign trade set forth the task for all the units and links of the economy to think and work seriously for continually increasing the quality and value of export goods and for continually reducing the demands for imported goods, by satisfying needs with domestic resources, fully implementing the slogan of the party that "without export there is no import."

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ALBANIA

# NEED FOR INCREASING LABOR PRODUCTIVITY STRESSED

Tirana PROBLEME EKONOMIKE in Albanian No 2, Apr-Jun 80 pp 53-58

[Article by Qimo Kocani and Dhimo Beleri: "Problems of Increasing Labor Productivity--Important Matters Concerning the Management of the Economy"]

[Text] The Albanian Workers Party has handled the continuous increase of labor productivity, as an indicator of the complex development, with great effectiveness, of the economy, of the economical use of manpower and concrete work, and of the implementation of the principle of relying on one's own forces.

The Seventh Plenum of the Party Central Committee and the important speeches of Comrade Enver Hoxha again stressed that the socialist organization and the increase of labor productivity are a broad and important field of the scientific management of the economy. The continuous increase of labor productivity is the objective economic law of socialism. It has a permanent and persistent character. The invigoration of the technical-material base, the perfection of the scientific organization and management of production and of work methods and styles and the expansion of the process of revolutionization of the entire life of the country, the struggle against foreign manifestations and against liberal attitudes toward these manifestions, for strengthening the socialist awareness of workers and so forth--are important factors for increasing production. It is important that these factors are well known and completely used in order to undertake increasingly greater tasks for increasing labor productivity.

Comrade Enver Hoxha says that the great projects of the draft plan of the Seventh Five-Year Plan cannot be achieved with small improvements. This also refers to the rates of increase of labor productivity. Important measures required in this field.

In the conditions of the rapid development of the economy and of social activity, the most complete and rational utilization of all forces capable of working are required. The increase of social productivity of labor is also linked with the correct distribution of workers in the production and non-productive spheres of work.

The party and government have given guidance and have taken measures so that the distribution of manpower will be given priority in the sphere of material production and so that the number of workers and of cooperative members will be increased at higher rates, in comparison with white-collar employees. This has a deep class character and is an essential condition for the development of expanded socialist reproduction. In 1979, the workers in the sphere of material production constituted 87 percent of the total number of workers. The number of workers in the non-productive sphere has also been increased, at the same time, in accordance with the tasks established by the party for the development of the social and cultural sector.

In this field, it is important that, in practical execution, these ratios be carefully observed in order to prevent cases when the number of workers in the non-productive sphere may increase at higher rates than the number of workers in the production sphere. The financial and planning organs in the districts and centers must monitor this process at close range, from the stage of planning and during that of the fulfillment of the plan.

Efforts are also made to preserve and improve the ratio between the number of workers and white-collar employees. During the years 1976-1980, the number of workers in production, construction and services has been increased at rates more than twice that of white-collar employees. There is room for this ratio to be further improved. The party guideline that production must be increased, but not the personnel, deals with the expansion of the masses' participation in the management of the economy and in governing the country and with maintaining an apparatus as simple and as flexible as possible, linked with the masses and financially less expensive.

For this reason, the class struggle against the tendencies to expand tables of organization without justification remains a permanent task for the government and economic organs. The fact that during the past 4 years about 46 percent fewer increases in personnel have been granted, in comparison with the demands, shows that it is possible to do better work, and that better work should be done in this field.

The relative reduction of the number of employees is closely linked with the simplification of organizational structures. These, in some cases, are heavy. There is room for increasing the quantity of work of the personnel of the organization and for making a better distribution of the number of workers between the same or similar enterprises and institutions and in the various links of the management of the economy. Much more can be done to mechanize work in administration. Some partial observations reveal that the accounting personnel in enterprises spend a relatively large amount of work time recording activities.

The structure of workers according to production fronts plays an important role in determining the rates of increase of labor productivity. At present, 81.7 percent of the workers work in the main units and sectors of production, while 18.3 percent of the workers work in auxiliary sectors, one of every five outstanding workers in production, is an auxiliary worker. However, this ratio can be improved in favor of outstanding workers in production. Of course, this ratio also deals with the nature of production in enterprises. It changes from one economic branch to another. In the meantime, noticeable changes are observed between the enterprises of the different branches of production and those of construction and services. A large majority of them are not justifiable, but they also deal with the still artisan organization of work. Thus, there are mining enterprises where one of every 2-3 outstanding workers is an auxiliary workers; and in some communications enterprises one of every four outstanding workers is an auxiliary worker . In these sectors, labor productivity is also lower.

Problems also exist in the distribution of workers according to shifts. It happens that in many enterprises the first shift has more workers, the second shift fewer and the third shift even fewer. In the first shift, as a rule, there must be more workers. There are workers who have limited capacities and, who, at the recommendation of medical organs, are not allowed to work in night shifts, as well as in difficult and harmful kinds of work. It happens that there are not enough working places in every enterprise for day shift work only. However, possibilities also exist for this category of workers to work with greater productivity and effectiveness. The textile combines in Tirana and Berat have organized units for the processing of scraps, where a large number of workers with limited capacities have been activated. Life dictates the need to properly handle this problem and the organization of the physical and vocational capability of these workers.

In regard to the distribution of manpower, according to the branches of the economy, there is room for a more expanded work. There are cases when, in some production branches, the manpower needs are calculated on the basis of the level labor productivity achieved without analyzing it extensively. The production branch that has a level of productivity lower than the average at national level is obliged to have more manpower. But, this harms the economy.

Labor productivity is also increased by fully utilizing the existing production capacities and by further expanding the technical and scientific revolution. Many enterprises, workshops and plants have fulfilled and overfulfilled their planned production capacities; but, the technical and technological indicators, that are anticipated in projects, are not fully fulfilled everywhere. This requires the strengthening of technical discipline and the improvement of the training of workers, of specialists and of their personal and collective responsibility in regard to the exact management of production processes.

The complete utilization of production capacities is closely linked with the transition to work with three shifts everywhere, with the establishment of the best fronts of machine services, with the improvement of the quality of repairs and of maintenance of machinery and equipment and with the organization of work production and of technical-material supply and so forth. The fact that a central center for sharpening instruments was organized at the former "Traktori" plant and, therefore, about 2 hours of work time is gained by shifts, compared to some other machine plants, tells about the great reserves existing in these fields.

Perfection of technology is one of the main directions of expansion of the technical and scientific revolution. This direction, based on the increase of opportunities to produce many machines and complete equipment in the country for plants and workshops, speeds up the pace of the transition from the artisan stage to the industrial stage of production and for increasing production in many enterprises. From the change of the technology of dyeing threads alone, at the textile combine in Berat, not only was the quality of production considerably improved, but also possibilities for increasing labor productivity 5-6 percent were created.

The experience of this enterprise and of many other enterprises shows that all the conditions have been created for the technological bureaus of the enterprises to tackle the planned concrete tasks much better in order to study, find, experiment, design and implement the most advanced technology in all the branches of production, especially in the exploitation of mines, in the enrichment and working of mines and in the timber and canning industry and in light industry and in the other branches of production.

The improvement of the level of mechanization of work, especially of those works that require many workers and heavy physical labor, demands attention. Now that our machine industry is producing machines and equipment of different kinds, the level of mechanization of work can and must be improved at higher rates, putting workers and specialists in action so that they will make studies, experiments and designs and will broadly develop a mass innovation movement. The tasks for improving the level of mechanization must be reflected more concretely in the annual plans of enterprises and departments; they must be substantiated with the kinds and quantity of machines and equipment that will be produced; and the fulfillment of these tasks must be pursued.

The scientific norming of work remains as an important factor for increasing labor productivity and for perfecting the planning of the economy. Now, 86.1 percent of workers are working with norms and 65.9 percent of the time worked with norms, has been worked with technical norms. We must work so that within this year no less than 90 percent of workers will work with norms and 70 percent of the time worked will be worked with technical norms.

The quality of work norming is the main problem. The main point is that the technical norm must not remain only in name, as happens in some enterprises. Its function, as a measure of work and of compensation, requires that the norms assure the complete utilization of work time and of machinery, the fulfillment of the production plan and of the tasks for increasing labor productivity and maintain correct relationships between production, yields, the number of workers, the wage fund and the average wage.

We believe that the re-examination and approval of single norms must adhere to these criteria. In the execution of their governmental functions of exerting control over the mass work and consumption, the central departments must direct the work norming on more scientific bases.

On the basis of advanced averages for fulfilling norms, it would be a good idea for each ministry to re-examine the single norms every year and, after having approved the new norms, in accordance with the procedure in force, to send them to the enterprises for implementation within the month of May of each year. These will also serve to determine the task of increasing labor productivity in the draft plan for the coming year. The responsible ministry must approve obligatory single norms for implementation in dependent enterprises. Thus, the Ministry of Industry and Mines can determine the necessary time for the production of 1 ton of coal or of 1 ton of chrome, or, the Ministry of Light Industry and the Food Industry must approve the norms for the work time needed for the production of a pair of shoes and for a meter of material or of cloth and so forth. On this basis, the enterprises must set their norms for every work process. If we act in this way, labor productivity in the leather-shoe plant in Korce will not be 55 percent higher than in the leather-shoe plant in Shkoder and 14 percent higher in the Gjirokaster leather-shoe plant, despite the changes in the structure of production that these enterprises may have. Planning the leather-shoe branch on the level of production of the Korce plant would give an increase of production worth 15 million leks per year.

During their work of studying and designing projects, the study and design institutes must take more into consideration the techniques and technology of the new plants and workshops to be constructed, so that they will work with acceptable norms and with norms for the use of manpower per production unit.

The scientific work norming helps the enterprises to conduct a more scientifically based work for the planning of work indicators and to correctly forecast the necessary work time per unit of ready-made product, so as to correctly determine the need for workers. On this basis, the wage fund can also be calculated in an analytical manner, the relationship between production, yields and wages can be maintained in all the cases and it would be possible to move on to the calculation of the price for every unit of ready-made product and the monitoring of its fulfillment serves as a means of control over the expenditure of the wage fund in relationship with the given production or with the actual work done.

In the conditions of our country, greater attention is required for strengthening the socialist organization of work and for the complete utilization of work time, as another important field for increasing labor productivity. Experience has taught us that the improvement of annual balance-sheets of the work time of workers is another obvious reserve. In this field there is room for a more rigorous planning; and it is essential to struggle so that those branches which are further behind, such as the mining and construction sectors and so forth, will reach the level of advanced enterprises. Special attention is required to reduce unjustified absences in work which were more emphasized in agriculture, mines and construction in the first 3 months of this year. The strengthening of the struggle against violations of discipline and against liberal attitudes toward them remains an important objective for the organizational and management work in enterprises and for reducing the work days that are lost because of administrative leave, temporary work disability, taking care of families and children and so forth.

The work time lost by enterprises because of defects in machinery and equipment and because of interruptions in the supply of raw material and materials, power, water and steam and so forth is an important target for strengthening discipline. This requires that drastic measures be taken in order to assure the normal supplying of work places. There are opinions that wages of workers in the auxiliary sectors should be connected with the fulfillment of the plan of the production unit where they serve and with the elimination of interruptions in the supply of power, steam and water and so forth.

The increase of labor productivity is also related to the improvement of the level of education and training of workers and cooperative members. The party and government have made great investments in this field and the educational and technical-vocational level of workers and cooperative members has been improved beyond comparison with the past. However, the rapid development of the economy has greatly increased the needs for trained workers. About 37 percent of the workers who do not fulfill their norms are untrained. At the "Josif Pashko" combine about 60 percent of the cases of poor quality production and 66 percent of machinery defects are caused by unskilled workers.

Man is the main factor in increasing labor productivity. Our socialist system has created all the objective and subjective conditions so that each worker may show his skills and so that he may work with awareness and put all his capacities and talent in the service of the building of socialism. In this direction, it is the task of the government and economic organs to organize and broadly develop socialist competition and the revolutionary initiatives and movements of workers in order to improve the effectiveness of their work and to produce more, better and cheaper.

9150
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## BULGARIA

# MINISTER DWELLS ON PROGRESS IN ENERGY DEVELOPMENT

Sofia ENERGETIKA in Bulgarian No 7, 1980 pp 4-8

[Speech by Nikola Todoriev, minister of power supply: "Let Us Enrich the Tradition of This Holiday With New Experience and Creative Accomplishments"]

[Text] Dear comrades and guests:

We are gathered here once again in a good mood and with a feeling of legitimate pride in the results of a particularly fruitful year to the power supply workers, solemnly to celebrate the bright and happy holiday of our profession--Power Worker Day.

Last year the Bulgarian power workers considerably increased their contribution to the great labor accomplishment of our people. Implementing the strategic slogan of the five-year plan for high quality and effectiveness, the collectives within the Ministry of Power Supply dedicated many efforts and skills and met fully, promptly, and rhythmically the needs of the national economy and the population for electric and thermal power and fuels.

Within the short calendar period between the two anniversary dates of June 1979 and June 1980, the energy potential of our economy rose by another 432 megawatts. The final and sixth unit of the Varna TETs [Thermoelectric Power Plant] was commissioned, as a result of which today it is the biggest thermoelectric power plant in Bulgaria and in the Balkans. The third consecutive power unit, developing a 210 megawatt capacity, was commissioned at the Maritsa-Iztok 3 TETs. By the end of the year the Kozloduy AETs [Nuclear Power Plant] will increase the atomic capacity of the power system by another 440 megawatts.

No other example may be found in the history of the power industry of such a record commissioning of major energy capacities within such a short time.

we can proudly state that the main task set by the 11th Congress on the accelerated and faster development of the power industry is being implemented systematically and successfully.

I am particularly pleased to obey the instruction of the management of the Ministry of Power Supply and the Central Committee of the trade union of miners, metallurgical workers, power workers, and geologists to warmly greet our guests, the leading workers in the power industry, and everyone present at the ceremony, as well as all power workers in economic combines, organizations, enterprises, institutes, and bases of the Ministry of Power Supply on the occasion of Power Worker Day, wishing them health, strength, happiness, and new creative successes in the building of our bright socialist future.

This year the celebration of this holiday is distinguished mainly by the maximum concentration of the efforts of labor collectives for the successful completion of the Seventh Five-Year Plan.

Even though it is still too early to draw final conclusions, the year is almost half over and our accomplishments so far give us reason to state that the tasks of the power industry, as formulated by the Seventh Five-Year National Economic Plan, will be successfully implemented.

In the first 5 months of 1980 the electric power plants within the ministry's system generated over 13 billion kilowatt hours, or about one billion or 7.6 percent more than the power generated in the same period of 1979. The bulk of this power was generated by the thermoelectric power plants. Plants operating with local coal accounted for 56 percent of the total. This is a particularly good illustration of the line followed particularly firmly in recent years of increasing their output at the expense of power plants using liquid and gas fuels.

I would also like to inform you that the tasks we have set ourselves on the intensification of coal extraction are being properly implemented.

So far, from the beginning of the year, nearly 13 million tons of coal have been mined, or 3 percent more than in the same period of 1979.

The achievements of the power industry in the Seventh Five-Year Plan are another remarkable stage in its nearly 40 years of socialist development.

This five-year plan the national energy complex made decisive progress in the specialization, concentration, and modernization of power production and distribution thanks to the application of general systems for the development of the complex on the basis of the multiplication approach.

According to preliminary estimates, the created material prerequisites are a good foundation for the successful beginning of the following stage in the development of the power industry in the light of the latest stipulations formulated by Comrade Todor Zhivkov at the national conferences of 31 October 1979 and 30 January 1980.

Last year the efforts of the ministry and of the managements of the economic organizations were focused on the development of the most favorable conditions for the effective application of the new economic approach and the reorganization of the work on the basis of the requirements of the economic mechanism. This is a ripe socioeconomic need at a stage when the task of raising social labor productivity several hundred percent through the accelerated utilization of scientific and technical progress could be implemented above all by rapidly surmounting the contradiction between the great potential of the developed material and technical base and our skill to guide it effectively.

The systematic and overall application of the new economic approach created real prerequisites for broadening the self-initiative of economic organizations, combines and their branches, the development of the creative forces of labor collectives, and the ever more complete coordination between the interests of the state and those of the collective and the individual worker.

Rapid economic progress and an increased living standard led to a great increase in overall power consumption. At the end of 1979 it exceeded 4,800 kilograms of conventional fuel per capita. The expected figure for the end of 1980 is 5,100 kilograms. With a specific electric power consumption of 4,106 kilowatt hours per capita in 1979 our country has outstripped in terms of this indicator all neighboring countries, most CEMA-member countries, and some advanced countries such as, for example, Italy.

In 1979, however, we witnessed a trend toward a change in the nature of electric power consumption which will be intensified in the future. For this reason I would like to emphasize it in particular.

Last year the national energy complex fully met the needs of the country for energy. In order to cover peak loads in the autumn and winter periods the electric power system had at its disposal reserves. For this reason no restrictions were imposed caused by capacity shortages.

The annual growth of electric power consumption compared with 1978, however, was only 2.7 percent. This is the lowest growth registered over the past 15 to 20 years. What does this prove?

The ever more acute shortage of recoverable resources, the increased price of their highly effective share, the exhaustion of good quality local coal, the mastering of most of the hydroelectric potential of domestic rivers, and difficulties in importing resources have set as the main task insuring the future economic development of the country on the basis of minimum energy outlays.

This means that in the future the optimizing of the power balance structure should take place by maximally upgrading the effectiveness with which power resources are used and reducing production power intensiveness.

In 1979 the national income rose by 6.5 percent compared with 1978, whereas overall power consumption rose by less than 2 percent while the growth of electric power consumption, as we pointed out, was 2.7 percent. These figures are the value equivalent of the systematic course of energy and resource conservation as stipulated in a number of Council of Ministers orders, carried out on a broad basis with the participation of state departments and economic organizations and the active support of the National Council of the Fatherland Front, the Bulgarian trade unions, the Scientific and Technical Union, and the Dimitrov Komsomol. We are already able to assert that the strategic task of energy and raw material conservation is becoming a nationwide project.

The introduction of utilization ceilings also contributed to the lowering of electric power consumption.

A trend toward a reduction in the growth of electric power consumption may be noted in virtually all advanced countries, reflecting a global policy of energy and resource conservation and reduction of industrial power intensiveness. In our country this trend will become more intensive.

Compared with the 1979 level, for example, relative energy costs should be about 13 percent lower by 1985 and about 17 percent lower by 1990. At the expense of this reduction, the share of local resources will be growing steadily at a high pace. From 27 percent in 1980 it will reach 35 percent in 1985 and 45 percent in 1990.

The state policy of upgrading the energy effectiveness of the national economy was expressed in a number of documents. As early as 1976 the Council of Ministers drafted and approved a national program for the effective utilization of material resources in the Seventh Five-Year Plan. The 1978 decrees on a strict regimen for saving on liquid fuels and electric power and of 1979 for their additional conservation played a particular role.

The management and coordination of such activities have been assigned to an interdepartmental coordination council, while systematic control over the consumption of power resources and the technical condition and effectiveness of power-technological installations in all sectors have been assigned to the State Energy Control Inspectorate and its rayon inspectorates.

The great task of mastering the third source of energy was not limited to the organization of coordination and control. The next absolutely necessary and important step was taken which insured the technical implementation of the tasks related to upgrading power effectiveness in the national economy. This was accomplished through the creation of the Industrial Energetics NPK [Scientific Production Combine], in charge of resolving problems related to the overall rationalization and reduction of power consumption either independently or in cooperation with specialized institutes in other sectors.

The combine has covered the organizational stage and the initial results of its work are visible. We must point out that the results are optimistic. In the first quarter alone over 400 industrial and heating boilers needing improvements were detected. By the end of the year savings totaling 250,000 tons of conventional fuel are expected as a result of such activities.

The ministry's management is confident that the good beginning laid in the Seventh Five-Year Plan for the development of this basic strategic direction in the power industry will continue. All the necessary prerequisites to this effect exist: Well-trained cadres, possessing the necessary experience and skills, are staffing the inspectorate and the combine. The young specialists now entering the field have someone to learn from. We are convinced that the important tasks related to control and to upgrading the energy effectiveness of the economy are in experienced and reliable hands.

I discussed in greater detail the third direction, the third energy source, as we call it, as being relatively new and still not traditional in the power industry.

Naturally, the nuclear power industry is a new direction in the development of the power industry. However, we have already become accustomed to its essential newness as a remarkable scientific and technical achievement. This is largely due to the stable and, allow me to emphasize, traditionally good work of the power plant and its collective. This must be justifiably pointed out in terms of our own terminology as belonging to the credit side of the holiday balance drawn on the occasion of Power Worker Day.

The annual utilization of installed capacities in the AETs in 1979 exceeded 7,000 hours. In terms of this indicator it is superior to all European nuclear power plants. Its annual electric power production set a record, exceeding six billion kilowatt hours.

A particularly impressive feature in the development of the nuclear power industry in the future will be the accelerated pace of completion of atomic electric power generating capacities.

By 1981 the Kozloduy Nuclear Power Complex will have four nuclear reactors of the VVER-440 type generating an overall power of 1,760 megawatts. Several years later, two 1,000 megawatt reactors will be commissioned sequentially. The construction of a second nuclear power plant will be undertaken so that by 1980 [sic] nearly 5,000 megawatts originated through atomic power will be operating within the energy system of the Bulgarian People's Republic.

What is the participation of our main source--thermoelectric power plants--in the energy balance?

Despite major difficulties in supplying them with energy resources, their technical and economic indicators have been improved.

In 1979 specific conventional fuel outlays declined by 7.4 grams per kilowatt hour. This resulted in considerable economy of primary resources. In the first quarter of 1980 outlays were reduced by another four grams.

A variety of conclusions may be drawn from the work of the thermoelectric power plants in the autumn and winter season, and since some trends in the organization of their work, meaning adverse trends, have recurred, we must stress them quite seriously, even though this introduces a jarring note to the overall enhanced mood of celebration. This will not detract or lower the significance of our successes. Let us recall Lenin's words. He said that focusing efforts on unresolved problems is the best celebration of an anniversary.

In the autumn and winter season some of the main thermoelectric power plants failed to reach their stipulated capacity as the result of the unrhythmical deliveries of coal and insufficient coal deposits in their warehouses. Such was the case with the Purva Komsomolska and Bobov Dol Thermoelectric Power plants. The difficult weather conditions hindered the extraction and delivery of coal to the Maritsa-Iztok 3 TETs. Unrhythmical deliveries of imported coal for the Varna TETs hindered its participation in achieving the power balance.

That is why this year's experience points at the categorical conclusion that whereas the generating capacity of the system has increased in terms of absolute value, and whereas the quality of repairs has been improved and the level of operative and technological discipline raised in the electric power plants, the basic and the most difficult and responsible task remains that of coal supplies. If we wish to welcome the autumn and winter season of 1980-1981 with the real confidence that last year's results will not be worsened, our efforts currently must be focused on insuring coal supplies.

The emphasis on coal, naturally, does not annul all other tasks related to the timely completion of repairs of installations in power plants and substations, maintaining model order in the power distribution and carrying grids, preservation of the water which this year nature has generously "released," recharging the nuclear power plant reactors, and so on. In these areas our power workers have a firm tradition. If we were to stress the new and stricter requirements they face, they would be related mainly to the quality of the work, to the utilization of all reserves, to upgrading the level of individual creative participation in the conservation of materials, raw materials, and energy, and the systematic implementation of the decisions of the National Party Conference.

To sum it up, it would be no exaggeration to say that the overall assessment of the results of the work of our collectives is consistent with contemporary requirements facing the power industry and that no contradiction exists between the growing needs and the realities of our work. The successes and accomplishments of 1979 were the result of the efforts of all workers, specialists, and managers of economic combines, organizations, institutes, and the ministry. They were the result of the work of the trade union and the Komsomol members, and the thousands-strong army of power workers in the country. Allow me from this high rostrum, on behalf of the leadership of the Ministry of Power Supply, to express the warmest gratitude to all for their adamant and selfless toil for successes in the power industry and the good of the entire nation.

In terms of its basic purpose of providing energy and fuels for the dynamic, proportional, and intensive development of all branches of the economy, the power industry is the base for the development of scientific and technical progress. In the Eighth Five-Year Plan this will be the main direction leading to the intensification of economic growth and increasing social labor productivity not in terms of percentages but of multiples of 100 percent.

Metaphorically speaking, whereas the wide tree of scientific and technical progress stretches its boughs in all realms of life, its roots, we could say, are in the power industry which provides the power carriers: the initial products for electronics, instrument manufacturing, robotics, automation, and so on. If we wish to take good fruits from this tree we must care for its roots.

Comrades:

The tradition of our holiday has two basic dimensions:

The first is from the viewpoint of the problems of today;

The second, considered on a broader level, must be looked at through the lens of future assignments.

We have entered the 80s of the 20th century--this conflicting century consecutively charged with hopes, concerns, pessimism, and faith. Our century has already been recorded in the history of nations with two world wars but also with a lengthy period of nearly 40 years of peace. It gave to the world the Great October Socialist Revolution and, with it, the greatest victory for the social progress of mankind: the birth and establishment of real socialism.

The 1980s are particularly noteworthy by a date under whose sign the entire progressive world is drawing a balance of its ideological and social gains in the struggle for human rights and progress.

We are also celebrating the 110th anniversary of V. I. Lenin's birth.

In his time Bernard Shaw wrote: "We should not believe that Lenin's importance is a matter of the past merely because Lenin is dead. We must think of the future and his importance to the future is such that should the experiment undertaken by Lenin--that of socialism--fail, modern civilization would perish as have many civilizations in the past."

Today the world is the witness that the experience of socialism has succeeded. Lenin's ideas are winning and their attractiveness and power are growing steadily.

Lenin gave the Soviet state and mankind a remarkable formula for the socialist way of construction: "Communism means Soviet power plus electrification of the entire country." This Leninist formulation became a guide in the economic practice of our party as well with the very first steps which the people's democratic system took under the leadership of Georgi Dimitrov, the great son and leader of the Bulgarian working class. In his remarkable report to the Fifth BCP Congress, Georgi Dimitrov formulated the general line for the transitional period and for laying the foundations of socialism, stressing the priority role of electrification.

In its April course, the BCP Central Committee, headed by Comrade Todor Zhivkov insured the faster pace in the development of the energy race which now, as we approach the Eighth Five-Year Plan, is providing all the necessary energy prerequisites for the implementation of the program in the next stage of the developed socialist society in Bulgaria.

Which are these prerequisites?

The 20th century is a century of tempestuous development of the scientific and technical revolution. It opens boundless possibilities to mankind for prosperity and all-round upsurge.

Naturally, each age has its problems. At the same time, however, it also provides the key to their solution.

Our age created the energy problem. To a certain extent, this is natural, for in the age of the scientific and technical revolution the need for energy and resources has risen sharply.

It took billions of years for nature to turn wood into coal and to create petroleum and natural gas deposits--treasures which contemporary civilization is using up at an incredible pace.

Since the beginning of the 20th century the population on earth has increased from one to four billion people, i.e., it has quadrupled. Within that time overall output has risen by a factor of 30 while energy requirements rose by a factor of 600.

Modern technical systems and efficient energy extraction and transformation methods led to a tremendous increase in the amount of power consumption in the world. Could it be otherwise? Energy is a booster for progress and limiting its consumption would mean interrupting the development and blossoming of science and culture, and of upgrading the living standard. Is it possible, is it conceivable to imagine today our homes without electricity, radio, or television? Could we conceive of transportation without electric or diesel traction? Could we conceive of metallurgy without electricity or organic synthesis without petroleum? The enumeration of the gains of the expansion of electric power consumption could be continued endlessly.

Whereas in the first 50 years of the century the production of all types of prime energy totaled 2.7 billion tons of conventional fuel, in 1978 it was 9 billion, or higher by a 3.3 factor.

Today energy consumption is almost commensurate with extractable fuel deposits which are the base of global energetics.

Some authoritative studies point out that by the year 2000 such consumption would reach 20 billion tons of conventional fuel while 100 years later it would triple. These are huge amounts.

The question is the following: Could such needs be met, how, and from what sources? This is a question whose answer contains the solution to the energy problem.

According to its existing domestic resources, pace of utilization, and import possibilities, each country has a different answer to this question.

However, our general principle remains:

The energy crisis of the 1970s, which spread over the Western world, indicated, above all, that the energy ocean is not limitless. It also reminded us of some truths we had tended to neglect: the fact that nonrenewable resources--coal and petroleum--are basically limited and that the atom must be, above all, a worker rather than a soldier, and that the sun and the wind are not only ageless but could also be the latest sources of energy, and that the waste of raw materials is not in the least a feature of abundance and "economy is not the mother of misery."

That is why, on the eve of the 1980s, we are witnessing a total reassessment of energy programs on a global scale, a reorientation from highly effective fuels to coal, even no longer of the best quality, and, above all, to the search for new unconventional methods for meeting energy requirements.

All in all, the European countries do not have many favorable alternatives. The only country in Europe and throughout the world able to satisfy its energy requirements through domestic resources is the USSR. Furthermore, the Soviet Union is developing its own energy base both to meet the requirements of its own economic development and to help the energy-fuel balances of the members of the socialist comity and of other countries.

At the latest 34th CEMA Session, held in Prague, Aleksey Kosygin, USSR Council of Ministers chairman, noted that in the current five-year plan, thanks to petroleum supplies from the Soviet Union, the socialist countries have been able to save about 13 billion rubles compared with world petroleum prices.

In this respect the long-term target program for cooperation in the fields of energy, fuels, and raw materials is becoming ever more important.

Bulgaria is poor in natural resources. Our small country has been generously granted natural beauty which warms the heart of every Bulgarian and draws to it millions of foreigners every year. "Land no bigger than a human hand but more than that I do not need," as the poet said. Even though as a slight aside from this statement, allow me to mention that now, on the eve of the great event--the celebration of the 1,300th anniversary of the birth of our state--we are becoming ever more aware of its beauty, its past, and its heroic history. The more we are approaching this sacred anniversary the more it is capturing our patriotic awareness and raising our pride. Hardly any other contemporary event could remind us so strongly that we are the heirs of a great history and great accomplishments, that we must increase them and that our filial duty to the fatherland demands, above all, faith and work for the future, and work and faith in the future, in the bright socialist future of the very old yet eternally young 1,300 years old Bulgarian state.

From the professional viewpoint we have all the necessary reasons to consider the future of the power industry clearly and with bright horizons. First, because it is in our hands and it is up to us, above all, to create it. Second, because we have a long-range program. Yet, as we know, there is nothing more mobilizing and stimulating than a precisely and accurately set target.

Bulgaria entered the 1980s with a powerful energy base comparable with that of many advanced countries. The program we have formulated for its development through the year 2000, based on our own possibilities and on cooperation with the CEMA-member countries and, above all, the Soviet Union, gives us the confidence to look at the future fearlessly.

It is no secret that the illusion of total energy sufficiency is no longer shared even by the biggest optimists. It is no secret that the age of the cheap flow of energy, which until recently was generously flowing, and about which we notice only now that it was very cheap, that this age has gone forever, yielding its place to the strict, sensible, and rational utilization of the basic human resource--energy. That is how we could briefly formulate the approach adopted by our state in its energy policy at the present stage and in the longer run.

Henceforth, there will be two basic criteria governing the development of the national energy base: the thrifty utilization of resources and their long-range conservation.

This development will follow three strategic directions:

- Maximum utilization of natural resources;
- Accelerated development of the nuclear power industry; and
- Maximum conservation of primary resources and energy, combined with the systematic and steady increase of the energy effectiveness of their utilization.

Such is the energy program of the 11th Congress.

Such is the energy program of the Eighth Five-Year Plan and of the subsequent stages.

The purpose is, in the final 20 years of our century, to lay realistic and scientific foundations for the power industry of the 21st century.

The basic direction in the energy program is the improvement of traditional energy extraction methods and the maximum utilization of local resources with a reassessment of their effectiveness criteria. That which was considered a proper criterion yesterday is today obsolete. Coal, which until recently was not considered an energy resource on a global level is becoming in our country the main fuel base of Maritsa-Iztok, the biggest industrial-energy complex, and Bulgaria's experience in burning such coal is becoming ever more popular.

The bulk of the extracted coal--over 80 percent--will be used in the production of electric and heat energy in big condensation and thermofication power plants.

In the next few years we shall undertake the building of hydraulic power plants along the Mesta and Struma rivers. Together with the Romanian Socialist Republic we have already undertaken the construction of the Nikopol--Turnu-Magurele Hydraulic Power Complex on the Danube River.

Bulgaria's favorable geographic location and suitable climate create very good conditions for the use of solar energy.

Solar heat installations are already under construction in tourist areas, resort complexes, and others, to be used for water heating purposes.

Various energy wastes and secondary energy resources obtained from some technological processes in metallurgy and the chemical, food, and light industries are another promising energy source.

The task of their utilization and application has been assigned to the New Energy Sources Scientific Production Economic Combine of the Ministry of Power Supply, created in 1979.

We foresee that its activities will greatly expand so that in the near future it will meet a substantial part of our energy requirements.

The pace at which our energy base will be developed in the immediate and more distant future calls for new reinforcements by young people, able independently to resolve the increasingly complex scientific-production problems, enter new areas of human knowledge, and truly convert science into the main productive force of our society.

We are awaiting the young specialists, trained in secondary vocational schools and higher technical educational institutions, to begin practical work with a good basic and specialized training which will insure their rapid adaptation to each workplace.

The reorganization of our educational system, which was the focal point of attention of the first education congress, held recently, earmarked the main ways leading to the development of many-faceted and, in the future, comprehensively developed individuals.

The young generation must be exposed to our traditions. This is best achieved within the creative environment of the labor collectives where tried power workers, tempered through numerous difficulties, are at work, power workers belonging to the older generations and for whom successes are not an exceptional phenomenon but a logical result of steadfastness, industriousness, and conscientiousness.

Let us take as an example a small labor collective which was recently named champion in the competition among hydroelectric power plants: the collective of the Batak VETs [Hydroelectric Power Plant]. At the national conference of hydroelectric power plants, the Batak VETs workers, sharing their experience, said: "We have never felt that our work and successes are something exceptional, nor do we wish to consider them such. They are the result of our long years of daily efforts. Now we are asked to describe to you how we have achieved something of a 'model' nature. The word is too strong. We can tell you only most ordinary things of our daily work and the way we did them not for the sake of glory but because they help us in our work, reduce stress, and provide order."

"Peak times," or heroism in the conventional meaning of the term, rarely take place in the work of the energy worker. His actions fit most accurately Lenin's words: "They cannot be resolved through the heroism of the individual thrust but require the longest, the most adamant, and the most difficult heroism of mass daily work."

The people to whom we shall entrust the future of the power industry are not a matter of indifference to us. The golden book of the power industry carries the names of hundreds of workers and specialists who have invested a great deal of work and dedication to enhance the honor of their profession and develop the industry. Dozens of new names have been added today to this list.

I am particularly pleased, in the holiday atmosphere of our celebration, to announce to you the decision of the State Council of the Bulgarian People's Republic, awarding orders and medals to power workers who achieved the highest results in their labor activities last year. They include Pavel Dimitrov, electrician at the Electric Power Supply Combine in Varna, who is a new Hero of Socialist Labor in Power Industry. The title "Deserving Power Worker" has been awarded to Stefan Mishev, director general of the control block at the ministry, and to Nikola Bulgarenski, director of the Dams and Power Systems Directorate. Obreten Bozhilov, from the Electrical Installations Administration in

Pernik, and Albert Barukh, director of the Central Power Repairs Base in Sofia, were awarded the Order of Georgi Dimitrov.

High distinctions were awarded to yet another 41 production champions and leading workers.

We are convinced that the new bearers of state awards will continue to dedicate their forces and skills, sharing their rich experience, to the successful development of the power industry and the prosperity of the country.

Offering our warmest congratulations to our champions and order bearers on the occasion of their deserved rewards, I wish them most warmly new and ever greater successes in their honorable careers.

Interpreting the historic path covered by our power industry in the course of the building of socialism, against the background of the real problems and gains within the specific period which we traditionally review on our holiday, allow me to reemphasize with gratitude and respect the comprehensive importance of our cooperation with the Soviet Union in the building of our power industry.

We are developing our energy base shoulder to shoulder with Soviet specialists. It is an old truth that when a true comrade stands by your side your work goes better. We realize that without the firm support of this comradely shoulder we would be unable to achieve rapid progress in our power industry.

Fraternal relations between our two nations cover literally all fields of life. "As the potential of our countries rises," Leonid Brezhnev has said, so do the possibilities for the intensification of Bulgarian-Soviet cooperation."

In his remarkable speech at the meeting of the National Council of the Fatherland Front, Comrade Todor Zhivkov emphasized that, "Now as well, on the eve of the 1,300th anniversary of the Bulgarian state, we say confidently and proudly that our country has never had a more loyal, more selfless, more sincere, and more reliable ally than the Soviet Union; never has it been so free, so independent, so confident in its present and future as it is in the fraternal family of the members of the socialist comity."

We offer our "thanks from the heart!" to all Soviet specialists who are dedicating their efforts, skill, knowledge, and experience in the development of the Bulgarian power industry, guided by their high international spirit, and applying socialist internationalism in action.

Comrades:

The circumstances throughout the world have become noticeably more complex. The process of detente had been put through a major test. Forces using all possible means to oppose the principles of peaceful coexistence have been energized in international life.

Peace-loving humanity is pitting its firm steadfastness in the struggle for peace and security on earth against the feverish arms race.

The Bulgarian people are responding to war threats through the full mobilization of their creative forces for the successful implementation of the decisions of the 11th Congress and for insuring the most favorable prerequisites for moving on to the next stage in building a developed socialist society--the stage of the Eighth Five-Year Plan.

The power workers have always stood in the leading ranks of the Bulgarian working class. Through their labor accomplishments and traditions, displaying firm consistency and ideological convictions, they are participating in the fulfillment of the party's economic program for renovation, social progress, and upsurge.

From the high rostrum of Georgi Kirkov Party House, on the day of our professional holiday, allow me to assure the BCP Central Committee, its first secretary, Comrade Todor Zhivkov and the government that the labor collectives of the Ministry of Power Supply will continue to dedicate all their forces, willpower and ambition to the successful completion of the Seventh Five-Year Plan and through their contribution to the building and development of the energy base of the Bulgarian People's Republic will report to the 12th Party Congress the successful start of the five-year plan of the future, in the age of technical progress, the age of the comprehensive blossoming and upsurge of our socialist homeland.

Many happy returns on the occasion of Bulgarian Power Worker Day!

5003
CSO: 2200

# DEPUTY MINISTER DESCRIBES ATOMIC POWER STATION

Sofia ENERGETIKA in Bulgarian No 7, 1980 pp 9-15

[Article by Engineer Oved Tadzher, deputy minister of power supply: "The Kozloduy Nuclear Power Complex--Scales and Development Prospects"]

[Text] The commissioning of the first reactor of the Kozloduy Nuclear Power Plant marked the beginning of a new stage in the development of our power industry. Within record-setting time two blocks with a generating capacity of 440 megawatts each were installed. Today the nuclear power plant accounts for 20-22 percent of the country's electric power. In terms of this indicator--the share of nuclear power in the energy balance--today Bulgaria is in third place in the world.

By 1985 the Kozloduy AETs [Nuclear Power Plant] will have a generating capacity of 2,760 megawatts, which will be 28 percent of the maximum peak load of the energy system, and 32 percent of the country's electric power output. By 1987 these figures will rise, respectively, to 36 and 39 percent.

Such concentration of capacity, unheard of in terms of our scale, determines the comprehensive approach which must be applied in the development of the plant. The Kozloduy AETs must be fully supplied with everything necessary for normal operations--highly skilled cadres, repair capabilities, buffer warehouses of various kinds, construction and installation capacities, living amenities, and others.

The program for the development of the national energy complex stipulates that by 1990 atomic power in the power industry must reach 5,760 megawatts. The third and fourth blocks of the Kozloduy AETs will be commissioned in 1980-1981, thus raising its overall capacity to 1,760 megawatts.

The subsequent blocks will involve new generation reactors developing a capacity of 1,000 megawatts each.

Detailed studies were made by the Energoproekt NIPPIES [Scientific Research Planning and Design Institute for Power Systems] and the

Ministry of Power Supply on the location of the new VVER-1,000 reactors both on the site of the Kozloduy AETs and on other sites. Consultations with Soviet organizations were held as well.

The possibility to concentrate a capacity of 3,760 megawatts on a single site was considered in detail. The results of the studies and comparative data for other countries have confirmed the expediency of building two blocks with an overall capacity of 2,000 megawatts on the site of the Kozloduy AETs.

In the USSR, for example, sites for a 4,000 megawatt capacity are being selected, with a possibility to raise it to 6,000 megawatts. They include the Smolensk, Chernobyl', Khmel'nik, and other sites. Nuclear power plants on sites with capacities similar to ours have been built in Japan, the United States, the GDR, France, the FRG, Canada, and elsewhere.

Insuring the normal operation of the four blocks of the VVER-440 blocks and the two new blocks generating 1,000 megawatts each called for the adoption of a number of new qualitatively different designs. This is also related to the closeness of the suggested site for a second nuclear power plant and the convenient transport route of the Danube River.

The development of the Kozloduy Nuclear Power Complex was based on an order of the Council of Ministers. The complex will be a powerful base for our power industry whose role and significance are determined by the basic strategic direction followed by the party's energy policy of accelerated development of an atomic power industry.

The nuclear power complex (AEK) developed gradually and systematically, in accordance with requirements governing operations and construction, and cadres and their training.

It could be said today that its scale has been defined. It will have an overall generating capacity for 3,760 megawatts (4 x 440 + 2 x 1,000), covering installations for the transportation of the spent fuel, processing shops and warehouses for the storage of a variety of radioactive waste, repair capacities, and a powerful construction and installation base (Fig. 2). Delivering and training conditions of cadres within the complex will be based on the latest requirements.

The development of the complex covers the following stages:

Kozlodouy AETs-first stage-2 x 440 megawatts

The project was completed in 1975 with the commissioning of the second 440 megawatt reactor. In the subsequent five-years the plant operated

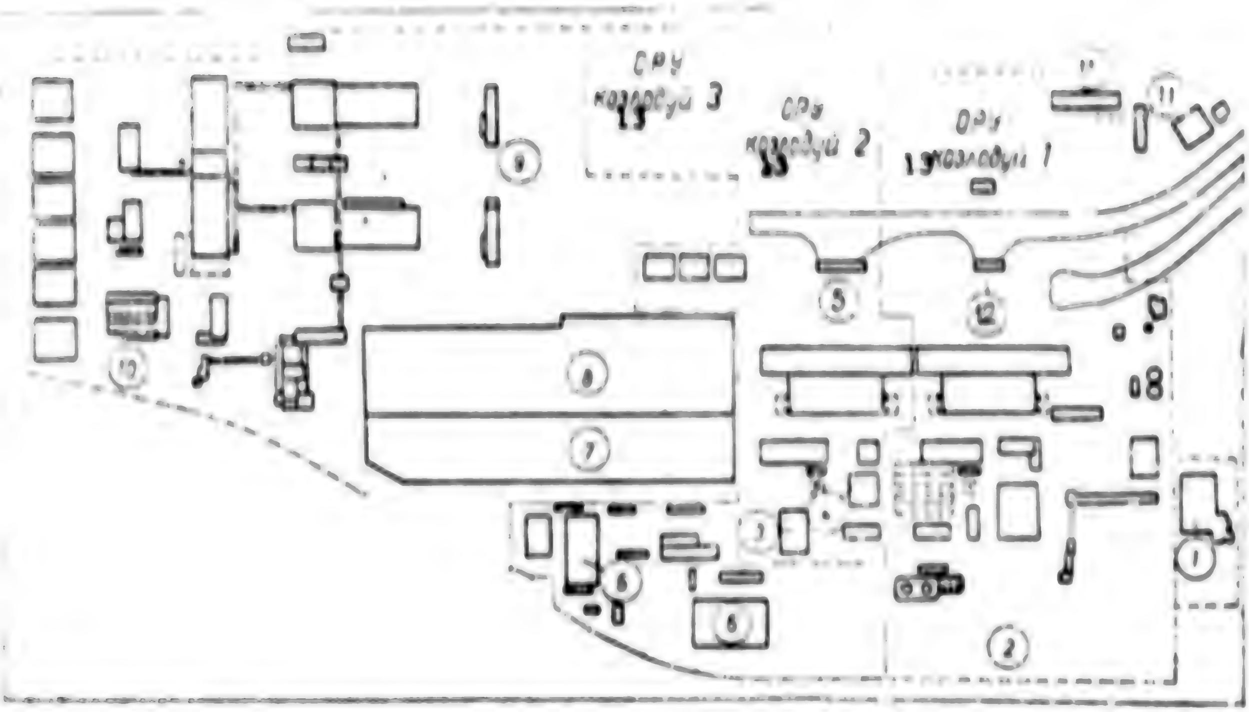

Fig. 1. Diagram of the Kozloduy Nuclear Power Complex

Key:
1. Training center
2. Nuclear electric power plant 1
3. Spent fuel storage
4. Workshop for the repair of installations in the first section
5. Nuclear power plant 2
6. Repair base (first stage)
6'. Repair base (second stage)
7. Construction base
8. Installation base
9. Nuclear power plant 3 (2 x 1,000 megawatts)
10. Base of the Tekhenergo NPP [Scientific Production Enterprise]
11. Warehouse for soft polluted waste
12. Shore pumping station
13. Kozloduy ORU

in a stable and reliable manner. All planned indicators were outstripped in 1979 and over 6.1 billion kilowatt hours of electric power were generated.

Kozloduy AETs--second stage--2 x 440 megawatts

The two new blocks of the Kozloduy AETs, to be commissioned in 1980 and 1981, have an advanced design with additional systems which offer better support to the plant's work under different systems. Thus, for example, a more reliable solution has been provided to the systems for emergency injection of a boric acid solution, a sprinkler system, the feeding of steam generators, and others. Industrial water supplies have been considerably improved. Three separate systems have been planned for the major consumers of each block. A better technical solution has been found for the shore and circulation pumping station. The two shore pumping stations are connencted, which insures their operational maneuverability. The possibility of the flooding of shore pumping stations has been avoided, and so on.

More advanced solutions have been applied also in the electric power supply systems which will become more autonomous. Particular attention has been paid to the reliability of the system for emergency electric power supplies to first category consumers. The possibility of emergency stopping of the block and reducing its capacity with an emergency control panel has been stipulated.

Before the new blocks have been commissioned the bulk of the measures for raising the seismic resistance of the blocks will be carried out. They are contained in a special project designed by Soviet specialists and call for upgrading the seismic resistance of equipment and buildings for an earthquake rated as 7 on the Richter scale and a recurrence possibility of once every 10,000 years. The basic systems of the first section will be reinforced: the reactor building, the steam generators, the main circulation pumps, the actuating mechanisms, and others.

To this purpose special hydraulic shocks are being procured from Japan. The main steam pipes and other systems of the second part of the plant will be reinforced. A special system will be installed for industrial antiseismic protection which will switch off the generators should an earthquake reach a certain level. The existing battery system will be replaced by a seismically resistant one.

Later on, the main circulation pumps will be replaced by new inertial-type pums (with a flywheel).

All measures aimed at strengthening antiseismic protection will be also implemented later on at the operating blocks of the first stage of the Kozloduy AETs.

### The Kozloduy AETs--third stage--2 x 1,000 megawatts

The third stage of the Kozloduy AETs will also have water-water type reactors developing an electric power generating capacity of 1,000 megawatts and saturated steam turbines with a unit power of 1000 MW, 3000 min$^{-1}$. The basic equipment will be procured from the USSR. Other parts will be delivered by the remaining CEMA-member countries as well, on the basis of an intergovernmental agreement. The plan for the Kozloduy 3 AETs is being drafted in a way which will make it possible to build and commission initially one block, followed by the second.

Industrial water supplies for the first 1,000 megawatt block will be provided through existing hydroengineering systems; the second block will require the building of a new water supply system from the Danube River. The two water supply systems will be connected. This will make the water supply system more flexible and more reliable.

The new reactors of the VVER-1,000 type (Fig. 2) represent a higher level in the development and perfecting of this type reactors. We know that water-water reactors are exceptionally reliable and stable and that their coefficient of use between recharging exceeds, in many of them, 0.90-0.95.

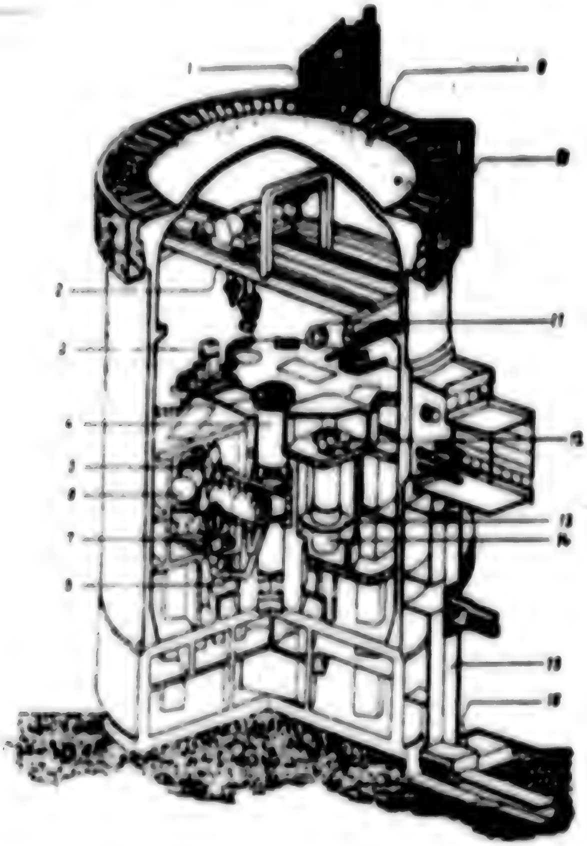

Fig. 2. Block with a 1,000 megawatt nuclear reactor

| Key: | | | |
|---|---|---|---|
| 1. | Roof exit | 9. | Reactor reinforced concrete cover |
| 2. | Bridge crane | 10. | Upper manipulator |
| 3. | Reloading machine | 11. | Emergency exit |
| 4. | V-1,000 reactor | 12. | Emulsifier |
| 5. | Steam mains | 13. | Service area |
| 6. | Steam generators | 14. | Volume compensator |
| 7. | Main circulation pump | 15. | Cable shaft |
| 8. | Main stopping valve | 16. | Pipeline passageway |

The nuclear steam generating system will be located under a protective cover (dome) which will insure the radiation safety of the plant localizing their radioactive environment in the case of a breakdown cracking of the first section, accompanied by an increase in the internal pressure to 3.6 MRa and a temperature of up to 150°C. The dome will also serve as a protection from outside shocks such as a shockwave or a falling object.

The cover will consist of prestressed reinforced concrete with an internal steel lining based on a technology especially developed for the purpose by Soviet specialists. Under our circumstances this will require the organization of a new construction and installation base equipped with the necessary shops and machinery and proper crane mechanisms.

The designing of the construction and installation base was preceded by a detailed study of Soviet experience and consultations with respective Soviet organizations.

The annual gross electric power production will be about 7.5 billion kilowatt hours per block operating on a basic system of 7,000 effective hours. The reactor fuel will be uranium dioxide. Two variants--3.5 percent or 4.4 percent--had been planned, depending on the interval between recharging.

## Spent Fuel Storage

In accordance with the recommendations of Soviet specialists, and on the basis of the territorial and geographic conditions of the Kozloduy AETs, the decision was made to build a storage for exhausted fuel on the plan's territory. Its purpose will be to receive, store, and ship out the cases with spent fuel. The design stipulates that all operations shall be in full accordance with technological requirements and radiation safety norms. The plant will have a special trailer truck for the transportation of the spent fuel. With the help of lifting equipment, the spent fuel will be taken from the truck to its allocated storage area. In the converse operation--the removal of the container--it shall be washed with special solutions and systems so that it may be deactivated to the level of the stipulated health norms.

The storage area will consist of individual and separate water-filled basins. The containers will be located at the bottom in other special containers. The storage area will have all the necessary systems for safety storing conditions.

Their capacity will be sufficient to take the containers from the four blocks of 440 megawatts each for a 10-year period. The problem of storing in the same area the containers from the 1,000 megawatt blocks is under study.

The design calls for the maximum utilization of existing installations and buildings for the preparation of deactivation solutions, water treatment, storing of radioactive waste, water supplies, steam supplies, sanitary living conditions, and others. The size of the personnel has been reduced to a minimum.

With the completion of the storage area for the spent fuel the power plant will become far better equipped and flexible in resolving problems related to spent fuel in various situations.

Installations for the Transportation of Spent Fuel

The shipping out of the spent fuel is a basic problem facing the power plant. In accordance with the intergovernmental agreement concluded between Bulgaria and the USSR, the spent fuel will be shipped to the USSR and processed in Soviet plants.

The transportation of the spent fuel is one of the most complex and difficult problems to resolve in the operation of nuclear power plants. That is why particular attention was paid to it. The plan for the transportation of spent fuel was developed by the Energoproekt NIPPIES with the active technical assistance of Soviet specialists. The necessary transport facilities for hauling the spent fuel have been secured and the hauling technology is fully in accordance with the stipulations of the International Atomic Energy Agency. Some of the fuel transportation cycles have already been successfully implemented. This is a major Bulgarian achievement.

The Tekhenergo NPP Base

The development and improvement of power production and distribution called for converting from the automation of individual production sectors to the creation of a unified interrelated automated system for the control of production processes.

Its implementation involves the saturation of technological processes with technical automated facilities and the utilization, along with mass-produced instruments, of a broad variety of specialized and one-of-a-kind apparatus based on the characteristics of the specific processes and installations. The various such apparatus have been produced either in small series or on a custom-made basis.

Studies have indicated that the need for specialized equipment in the sector is rising steadily and that by the end of the Eighth Five-Year Plan it will exceed 12 million leva per year. On the other hand, the ever stricter requirements for full metrological support of the production process call for the adoption of a new approach to the solution of the problem of automated technical facilities through centralized repair operations under industrial conditions.

So far, the Tekhenergo NPP has mastered the production of a certain variety of technical facilities with an annual output in excess of one million leva, including some 50 different types of items. The number of such items is being steadily expanded and developed in order to cover also installations which are currently being imported. In order to make such activities consistent with the increased requirements, in 1979 a branch of the Tekhenergo NPP was opened on the territory of the Kozloduy AETs. Its production program includes the making of specialized equipment for the needs of the sector and for spare parts, as well as centralized repair of technical means for the control and management of technological processes.

The subsequent development of this branch as a sectorial plant with an annual output scheduled to exceed five million leva by 1985, employing about 400 people, will make it possible to successfully resolve several other problems such as:

Sets of apparatus for the control and automation of newly built, reconstructed, or modernized projects in the power system through cooperation and integration with CEMA-member countries and with domestic plants;

Acceleration of the pace of automation of the energy system through electronics, robotics, and the application of other achievements of technical progress;

Fuller employment of women in the area of the Kozloduy Nuclear Power Complex.

At the end of this development the plant will encompass all engineering activities related to automation in the power industry.

## Base for Equipment Repairs at the Kozloduy AETs

The high concentration of capacities at the Kozloduy AETs calls for the creation of a corresponding repair base. The 440 megawatt blocks will have two 220 megawatt turbines each. Every year each block will be recharged with fuel. The recharging takes 35 to 40 days. Meanwhile, the remaining power systems in unserviced premises and in the general part of the block will be repaired. Every year capital repairs will be made on one of the turbines and limited repairs to the second.

The capital repairs of the turbine will take 65 to 70 days. Therefore, the time for the reloading and repair of the four blocks will be 150 days, while that of basic repairs of the turbines will be about 260 to 280 days. Subsequently the time of repair operations of the 1,000 megawatt blocks will be added.

A total number of various installations will be concentrated in the Kozloduy AEK: turbines, pumps, transformers, generators, electrical equipment, a large number of control-measuring apparatus, and others. The cost of such installation will be about one billion leva. This will require the annual production of spare parts worth 30 million leva. This is the base of the development of repair capacities on the site of the Kozloduy AEK.

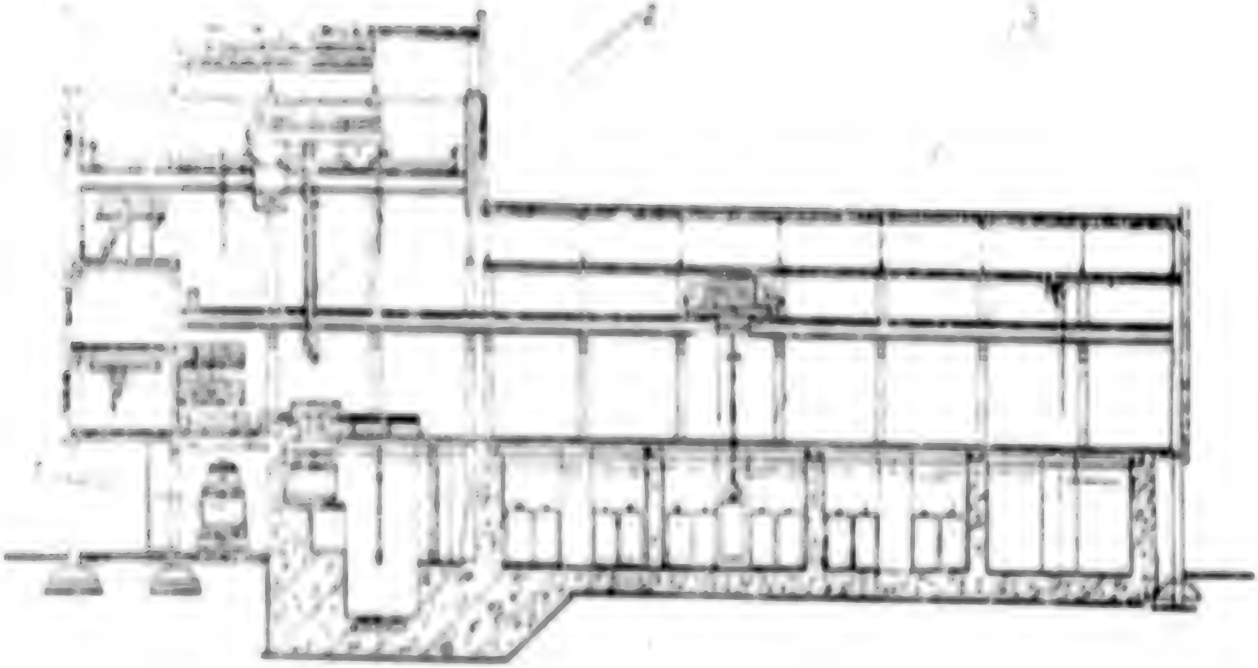

Fig. 1. Spent Fuel Storage

Key: 1. Spent fuel container
2. Valve and lever with special clamp
3. Special shielding container for the containers with spent fuel (skipper).

Fig. 1 shows the Kozloduy AEK repair shops. Several basic considerations governed the positioning of repair capacities, such as:

Insuring the most effective utilization of the manpower. This means, for example, the use of the entire repair personnel in periods of major labor-intensive repairs at the plant and the transfer of some personnel to the repair base in slack periods;

The possibility and expediency of using a number of common installations and engineering facilities such as roads, water and sewer mains, steam pipes, communications systems, production cooperation facilities, and others, thus saving consideral capital investments;

Better possibilities for the organizational coordination of repair operations;

Utilization of some buildings and installations of the construction base which will become unnecessary after the future expansion of the Kozloduy AEK.

The designing and construction of a base for the production of spare parts, attachments, and equipment for the Kozloduy AETs was undertaken by Decision No 631 of the Council of Ministers, dated 29 October 1974.

The first stage of the Kozloduy BREO [Spare Parts Production Base] was commissioned in May 1978. The production program of the base amounts to 3.2 million leva per year.

The base can repair high tension electric motors, machinery operating with direct current, and explosion-proof low tension electric motors.

Laboratories for metal control and weldings, OTKK [Technical Control Department], and units for the drafting of design and technological documents and production preparations have been set up.

In 1979 the Kozloduy BREO produced goods worth about three million leva. The base also developed a one-of-a-kind container for checking the body of the VVER-440 reactor of the AETs, thus saving substantial funds. Important equipment was produced for the thermoelectric plants within the system, such as drum-scraper metering devices, work wheels for grinding fans, bodies of air and smoke fans, pressure containers and reservoirs, and others.

The completion of the second stage of the base will create conditions for expanding the production of auxiliary equipment for the AETs.

Between 1980 and 1982 the Kozloduy BREO will be expanded (second stage) with the addition of three industrial premises. The production program will be expanded by including the production of spare parts, repair appliances, and some type of atomic systems.

A modern hammer-press section will be built. The Energoremont SO [Economic Trust] will organize a cooperated system with the castings plant in Kresna for the manufacturing of special castings of steel, cast iron, and nonferrous metals.

The completion of the second stage will provide the solution to a problem of essential significance in the building of power projects: anti-corrosion lining and rubberizing of containers and pipelines.

### Workshop for the Repair of First Section Installations

In addition to general purpose repair capabilities, the nature of the production process in the nuclear power plant calls for the development of capabilities for the repair of installations which have operated in the strict regimen area. The main buildings of the power plant contain some deactivation systems whose possibilities are rather limited.

Repairs of first stage installations are related to a number of characteristics and requirements affecting both the equipment and the personnel. The equipment calls for special installations for transportation to the repair shop where, along with cleaning and lubrication operations, it must be deactivated with special solutions on the basis of a specific technological discipline for the separation and storage of waste--liquid (solutions, oils, and so on), soft (threads, clothing, and others), and solid (shavings, instruments, and others).

The personnel in this workshop must obey the general requirements for personnel working in an environment containing radioactive pollution. A number of other requirements must be observed in terms of the ventilation system, purification of the air, waste water treatment, and so on.

The workshop for the repair of first stage installations, currently being designed, will insure their repair along with the capital repair of a power block and the running repair of the second. Meanwhile, the remaining blocks will operate normally.

The workshop will have facilities for disassembling main circulation pumps, their electric motors, conduits for SUZ [Control and Shielding Systems], main blocking valves and other armatures, heat exchange systems, pumps, low tension electric motors, fans, and others.

The workshop will have a section for pressing and briquetting of shavings, laboratories, drying premises for engines, an instruments workshop, and others.

The size of capital investments has been substantially reduced through the utilization of many joint buildings, equipments, and systems.

The workshop will be equipped with a special system for docimetric control and biological protection facilities will be provided in the respective premises.

## Training Center

The specific nature of the nuclear power industry requires the steady upgrading of the skills of the operational personnel, the improvement of their knowledge and skills, and maintaining it in a state of readiness. This cannot be achieved exclusively through theoretical studies but calls for systematic personnel training under complex emergency conditions. This applies both to the training of existing cadres as well as the personnel of the new blocks scheduled for commissioning.

To this effect the Kozloduy AETs is building a training center equipped with laboratories for various subjects, classrooms, a projections hall with about 700 seats, and others. Subsequently, a simulator for the 440 megawatt and 1,000 megawatt blocks will be added to the training center. The training center will be used also by the nuclear power industry technical school located in Kozloduy and for holding international meetings, symposiums, conferences, and so on.

## Construction-Installation Base

In the building of the first and second stages of the Kozloduy AETs, the output requirements for construction and installation were fully met by the developed facilities at the site without requiring, even in the most stressed construction periods, the delivery of structures or installations by other producers.

However, the requirements of the 1,000 megawatt blocks would require a radical reconstruction of the base part of which will be used to meet operational requirements as well.

In accordance with the Council of Ministers decision a new modern construction and installation base will be built to provide all the necessary prerequisites for the building of the new capacities within the stipulated short times with considerably stricter requirements. Because of the convenient transportation connections with the site of the second nuclear power plant, this base will be used for the production of construction and installation items and to meet the requirements of the second power plant as well.

## Warehouse for Soft Polluted Waste

Some quantities of soft radioactive polluted waste develops in the course of the operation of the plant: clothing, threads, rags, and so on. Their processing and storage creates certain difficulties. This was the reason for the building of a warehouse for such purposes. It consists of reinforced concrete cells whose insulation will be achieved in two stages: the first before packing them and the second which will involve their sealing. The dimensions of the storage area will make it possible to retain properly pressed waste for a period of 10 to 15 years.

## Shop for the Processing and Storing of Radioactive Waste

The problem of processing and storing liquid radioactive waste which contain components with a long half-life is one of the most complex in the operation of nuclear power plants. Our specialists from the Institute of nuclear research and nuclear power industry, Energoproekt NIPPIES, and Kozloduy AETs have joined efforts to resolve the problem through the development of various alternatives for the processing of radioactive waste. Global experience in this area is being energetically studied as well. At the same time, Soviet organizations are being consulted for purposes of designing and building such a shop with their cooperation, based on the bitumen lining. It is believed that its construction could be undertaken at the beginning of the next five-year plan.

It is worth mentioning that the building of the Kozloduy nuclear power complex is being paralleled by the extensive urbanization of Kozloduy. A program has been drafted for the next 5 years stipulating the building of a number of new sports, health, training, and commercial installations, heat supply facilities, and others. This will help to improve the living and recreation conditions of the workers and specialists of the biggest energy complex in the country.

5003
CSO: 2200

## MORE EFFICIENT UTILIZATION OF INDUSTRIAL BASE URGED

Prague TRIBUNA in Czech No 35, 1980 p 13

[Article by Zdenek Haba]

[Text] Our republic belongs among the countries possessing a highly developed technical base. During the years of the successful building of socialism we have built in our country hundreds of new factories, established new production branches which we never had before, and put our agriculture on new technical foundations. In 1948 our production sector possessed capital assets worth Kcs 335 billion. Today, the overall value exceeds Kcs 1.3 trillion; in other words, Kcs 220,000 of capital assets per worker in the production sector.

This is a very respectable amount which poses a legitimate question: Can we manage it well? Or, to use different words, are we able to force the complex and mutually interrelated system of machines, instruments, equipment, buildings, construction sites, technological complexes, etc, which represent this amount of money, and which Marx long ago figuratively called the "bone and muscle system of production" to serve the needs of development of a socialist society to the best of its ability? The "Set of Measures" could not ignore this question, either for general reasons (the level of the social productivity of labor and thus, in the final analysis, the growth of the people's standard of living basically depends on the effectiveness of the means of production) or for immediately practical reasons, because the effectiveness of the means of production has not been developing favorably in recent years.

Extensive development of our national economy emphasized primarily the quantitative aspect of the development of capital assets to the detriment of their qualitative aspects. The consequence of this development was the fact that the growth of capital assets was accompanied by a demand for more manpower--and this demand was bigger than the natural increase in manpower. A necessary consequence of all this has been a decline in the number of shifts persisting since 1962, which has led to less than full utilization of effective and expensive facilities. In certain cases these factories have been utilized at only 50 percent capacity. If our entire industry were to work in two shifts we would need an additional half million qualified workers. Insufficient utilization of capital assets is aggravated by the fact that not even during the regular worktime are the machines fully used--at times because of organizational reasons and at other times because of shortage of materials and energy, absenteeism of workers, etc. This shortcoming is especially conspicuous in the construction sector. Another factor causing lowering of effectiveness of capital assets is the everincreasing price of construction, machinery and equipment. The purchase price is rising faster than the advance in equipment efficiency, thereby causing a worsening of anticipated economic results. As a consequence of all the above, and other circumstances, we have witnessed a decline in the effectiveness of capital assets of 9 percent during the 1971-1979 period.

It seems paradoxical that even under this situation pressure by the production sector of the economy persists for new facilities even if the existing ones are not fully utilized. However, this attitude is a logical consequence of extensive development. As long as we have a planning system which determines the targets in gross production, and regularly increases these targets from year to year, the simplest way to fulfill the plan is to expand the production capacity, all the more so when the expense connected with the construction of new facilities is paid for by the state. Pressure to increase the volume of production results in a pressure for investments and, in turn, the pressure for investments leads to extensive development. It is necessary to radically change this investment atmosphere.

## From Extensive to Intensive Production

The "Set of Measures" starts from a correct premise by stating that a change in the attitude of the production sector toward capital assets and toward their intensive utilization depends on the realization that the great dimensions of these assets represent economic disadvantage. Thus, the "Set of Measures" contains, among other things, a measure according to which approximately one-fifth of the wage fund (the so-called incentive component of wages, namely, premiums, bonuses, shares in economic results) is paid according to the fulfillment of the profitability plan of capital assets. This is an indicator which measures the volume of production funds by the amount of profit. The smaller the size of production funds needed for the realization of the planned profit, the more favorable this indicator is for the pertinent economic unit, which means higher bonuses. Managers, who are most influential in the investment policy of the economic production unit, are especially affected by this incentive system thanks to special regulations. Thus we can expect that the attitude of the production sector of the economy toward the effectiveness of capital assets will undergo a change, and that the need for the utilization of assets will occupy the foremost place.

Higher effectiveness and quality of production require not only better utilization of capital assets, but also further capital construction. The basic prerequisite for achieving higher effectiveness of production is the application of the current scientific-technical development while fully utilizing all advantages of the international socialist division of labor. This means a selective investment development, namely, the abandonment of certain traditional production branches and specializations, and an intensive development of other branches. It is obvious that such a development requires large investments because we deal here with the creation of new branches: We will need new machines and technological units which sometimes will require the construction of entire new factory complexes. The structural conversion of production is unthinkable without large investments. At the same time it is necessary to modernize and technically reconstruct those branches of production which do not have much of a future, but which will be needed for complementary production. Consequently, we cannot do without investments even in this case.

However, there is the objection that we lack manpower, without which we will not be able to start new plants operating. Instead of saying "there is a shortage of manpower" we should say: "Our production sector uses too much manpower." With a better organization of labor and a higher quality of production norms on the one hand, and a higher technological standard of production on the other, it would be possible to achieve today's results even with a substantially lower number of workers. Then, the "saved" manpower could be transferred where it is more needed, and where its contribution to society would be much more effective. Thus, we must reject an argument that we should not invest because of the shortage of manpower. On the contrary, we must invest and undertake technical reconstruction in order to gain more manpower. This, the so-called subjective effect of capital construction, (i.e., replacing manpower by machines) has not been widespread in our country so far. It is enough to recall the difficulties regarding the fulfillment of the plan to eliminate unsuitable plants and operations, or to eliminate worn out capital assets. A high technological level of investments, together with other measures, will make it possible to change this situation.

## What Are the Priorities?

How will we secure the necessary scope and structure of investments in the years to come?

The "System of Measures" anticipates that in the capital construction plan, priority will be given to those construction projects which help to realize the results and tasks of the state's final programs and the state technological development tasks. The most important investments will be listed in the category of mandatory and centralized construction projects, which will be speified in the state plan, or their realization will be supervised from a central place. Money for the realization of these investments will be drawn from the construction fund. This fund will specify the amount planned. Deliveries of material and labor will be accounted for centrally. In the case of centralized construction projects, the funds earmarked for them may not be transferred to other construction projects. These measures ought to secure the realization of the basic tasks of the structural conversion of production, not only as far as the scope of the plan is concerned, but also in regard to its realization.

The second group of investments will consist of the so-called limited investments. They include construction projects costing over Kcs 2 million, but not specifically listed in the first category of investments, as well as all construction requiring up to Kcs 2 million and machines and equipment not included in the budgets of the construction projects. This category of investments will be financed from the development funds and their realization will also depend on the amount of money the VHJs will themselves provide for their capital construction.

All this is a basic change in comparison with the past. In the past, the investor did not lose any sleep worrying about costs. He was not responsible for them, did not pay them, and regarded the resulting capital assets from the point of view of how they helped him fulfill the plan. In the future, however, the situation will be different. State budget allocations for investments are to be given only in exceptional cases. Money provided by the VHJs and bank loans will play a decisive role in financing investments. In order to make this possible, it will be necessary to increase the amounts held by the VHJs. This could be achieved by reducing the payments the VHJs return to the state budget. The "Set of Measures" anticipates such a development.

These new rules for financing investments greatly increase the responsibility of the VHJs for implementing effective investment policy. If we anticipate that approximately half of the overall volume of capital construction will belong to the category of limited investments and will be financed from the development fund which will be created from depreciation, profit, and possibly other resources owned by the VHJs), and also that the state budget does not list individual projects of this category, but only the overall limits for their realizations in individual branches, then it is obvious that the effectiveness of realized projects and their concentration will, to a certain extent, depend on the production sector, and on concrete investment plans this sector will select and will be able to realize.

For limited investments, too, there are naturally strict criteria governing planning, approval, and realization of construction projects. However, the VHJs will have, within the framework of these criteria, the possibility of choosing between more and less advantageous variants. This, after all, is the intent of the above-mentioned measures. However, it does not follow that what is advantageous for the VHJs must necessarily be advantageous for our entire society. For example, today the construction of civic facilities in individual developments is less advantageous for our construction organizations than is housing construction. This advantage is being demonstrated in practice despite the fact that it is in the social interest to offer necessary services to those who move to new housing units. For this reason, the central organs of individual sectors face a serious task, namely, to see to it that a responsible approach is adopted in the decisions concerning the preparations for and construction of projects--among other things also because, especially in capital construction, which is subject to a maze of different regulations, the enterprises have enough experience in methods of circumventing regulations and orders.

The full utilization of capital assets and their further development by means of planned capital construction is one of the most serious questions which the improved system of planned management must face. We have to exert much effort before the intentions of the "Set of Measures" will be turned into reality. However, this is the only way available to improve the overall effectiveness of our national economy and create the prerequisites for the further growth of our country's standard of living.

1277
CSO: 2400

## NEW STATUTES OUTLINE FOREIGN TRADE ENTERPRISE RESPONSIBILITIES

East Berlin AW DDR-AUSSENWIRTSCHAFT in German Vol 8 No 37, 10 Sep 80 'Documents' supplement pp 5-11

/Official text of statutes for 13 GDR state foreign trade enterprises (VEAHB), signed by minister for foreign trade in August 1980, published by Information and Public Relations Department, GDR Ministry for Foreign Trade/

/Text/ DEFA-Aussenhandel

### Article 1

(1) This VEAHB is named DEFA-Aussenhandel, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as DEFA-Aussenhandel). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) DEFA-Aussenhandel is a legal entity.

(3) DEFA-Aussenhandel has a capital stock. The capital stock amounts to:

500,000 (five hundred thousand) marks of the German Democratic Republic.

(4) DEFA-Aussenhandel is liable with its capital stock for any obligations.

(5) DEFA-Aussenhandel is subordinated to the minister for culture.

### Article 2

(1) The objectives of DEFA-Aussenhandel are the export and import of

Entertainment, documentary, children's, instructional films and cartoons
Inspection and measuring films
Film copying and services relating to films.

(2) The further objectives of DEFA-Aussenhandel are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters DEFA-Aussenhandel is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent DEFA-Aussenhandel in legal matters

### Article 4

The general director and the deputy to the general director are appointed and dismissed by the minister for culture following approval by the minister for foreign trade.

The above statute of DEFA-Aussenhandel, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed.

Berlin, 1 August 1980. The Minister for Foreign Trade

signed: Horst Soelle

## Baukema Export/Import

### Article 1

(1) This VEAHB is named Baukema Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Baukema Export/Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) Baukema Export/Import is a legal entity.

(3) Baukema Export/Import has a capital stock. The capital stock amounts to:

10,000,000 (ten million) marks of the German Democratic Republic.

(4) Baukema Export/Import is liable with its capital stock for any obligations.

(5) Baukema Export/Import is subordinated to the general director of the VEB Kombinat Baukema Leipzig.

### Article 2

(1) The objectives of Baukema Export/Import are the export and import of construction machines,machines and equipment for the manufacture of building materials,ceramics and fireproof products,household and sanitary ceramic

products as well as the scientific-technical results and services related to these products.

(2) The further objectives of Baukema Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters Baukema Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Baukema Export/Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for construction of heavy machinery and equipment following approval by the minister for foreign trade.

The above statute of Baukema Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 20 August 1980. The Minister for Foreign Trade

signed by proxy: Dr Beil

## Chemieanlagen Export/Import

### Article 1

(1) This VEAHB is named Chemieanlagen Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Chemieanlagen Export/Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) Chemieanlagen Export/Import is a legal entity.

(3) Chemieanlagen Export/Import has a capital stock. The capital stock amounts to:

10,000,000 (ten million) marks of the German Democratic Republic.

(4) Chemieanlagen Export/Import is liable with its capital stock for any obligations.

(5) Chemieanlagen Export/Import is subordinated to the general director of the VEB Chemieanlagenbaukombinat Leipzig-Grimma.

## Article 2

(1) The objectives of Chemieanlagen Export/Import are the export and import of plant and equipment for the chemical industry, tank plant, machines and equipment for the sugar industry and an Korobon products as well as related scientific-technical results and services.

(2) The further object of Chemieanlagen Export/Import is all business operations which, directly or indirectly, may assist the goal of the enterprise.

## Article 3

(1) In all legal matters Chemieanlagen Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Chemieanlagen Export/Import in legal matters.

## Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for chemical industry following approval by the minister for foreign trade.

The above statute of Chemieanlagen Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 20 August 1980. The Minister for Foreign Trade

signed by proxy: Dr Beil

Fischimpex Rostock

## Article 1

(1) This VEAHB is named Fischimpex Rostock, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Fischimpex). It is domiciled in Rostock.

(2) Fischimpex is a legal entity.

(3) Fischimpex has a capital stock. The capital stock amounts to:

5,000,000 (five million) marks of the German Democratic Republic.

(4) Fischimpex is liable with its capital stock for any obligations.

(5) Fischimpex is subordinated to the general director of the VEB Fischkombinat Rostock.

### Article 2

(1) The objectives of Fischimpex are the import and export of

-- Fish, fish products, crustaceans and other marine products,
-- Licenses for scientific-technological services related to the fishing business,
-- Commission processing of fish, crustaceans and other marine products,
-- Rights to carry on fishing and related operations,
-- Services within the scope of cooperations.

(2) The further objectives of Fischimpex are all business operations which, directly or indirectly, may assist the goal of the enterprise.

### Article 3

(1) In all legal matters Fischimpex is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Fischimpex in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for district managed industry and foodstuffs industry following the approval of the minister for foreign trade.

The above statute of Fischimpex, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed.

Berlin, 1 August 1980. The Minister for Foreign Trade

signed Soelle

## GERMED-Export-Import

### Article 1

(1) This VHAHB is named GERMED-Export-Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as GERMED-Export-Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) GERMED-Export-Import is a legal entity.

(3) GERMED-Export-Import has a capital stock. The capital stock amounts to:

10,000,000 (ten million) marks of the German Democratic Republic.

(4) GERMED-Export-Import is liable with its capital stock for any obligations.

(5) GERMED-Export-Import is subordinated to the general director of the VEB Pharmazeutisches Kombinat GERMED.

### Article 2

(1) The objectives of GERMED-Export-Import are the export and import of the following type of product:

Finished pharmaceuticals (human and veterinary), pharmaceutical elements, anterior products and ancillary materials, dressings and bandages, medical hollow articles, pharmaceutical vitamins and hormones for livestock feed, drugs, laboratory and refined chemicals. The objectives of GERMED-Export-Import include the export and import of scientific-technological services for the products listed.

(2) The further objectives of GERMED-Export-Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters GERMED-Export-Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent GERMED-Export-Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for chemical industry following approval by the minister for foreign trade.

The above statute of GERMED-Export-Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 15 August 1980. The Minister for Foreign Trade

signed by proxy: Dr Beil

Pneumant-Bereifungen Export-Import

## Article 1

(1) This VEAHB is named Pneumant-Bereifungen Export-Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Pneumant-Bereifungen Export-Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) Pneumant-Bereifungen Export-Import is a legal entity.

(3) Pneumant-Bereifungen Export-Import has a capital stock. The capital stock amounts to:

500,000 (five hundred thousand) marks of the German Democratic Republic.

(4) Pneumant-Bereifungen Export-Import is liable with its capital stock for any obligations.

(5) Pneumant-Bereifungen Export-Import is subordinated to the general director of the VEB Reifenkombinat Fuerstenwalde/Spree.

## Article 2

(1) The objectives of Pneumant-Bereifungen Export-Import are the export and import of tires (including inner tubes and tire outers) as well as related scientific-technological results and services.

(2) The further objectives of Pneumant-Bereifungen Export-Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

## Article 3

(1) In all legal matters Pneumant-Bereifungen Export-Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Pneumant-Bereifungen Export-Import in legal matters.

## Article 4

The general director and the deputy to the general director are appointed and dismissed by the minister for chemical industry following approval by the minister for foreign trade.

The above statute of Pneumant-Bereifungen Export-Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 15 August 1980

The Minister for Foreign Trade
signed by proxy: Dr Beil

Schienenfahrzeuge Export/Import

## Article 1

(1) This VEAHB is named Schienenfahrzeuge Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Schienenfahrzeuge Export/Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) Schienenfahrzeuge Export/Import is a legal entity.

(3) Schienenfahrzeuge Export/Import has a capital stock. The capital stock amounts to:

10,000,000 (ten million) marks of the German Democratic Republic.

(4) Schienenfahrzeuge Export/Import is liable with its capital stock for any obligations.

(5) Schienenfahrzeuge Export/Import is subordinated to the VEB Kombinat Schienenfahrzeuge Berlin.

## Article 2

(1) The objectives of Schienenfahrzeuge Export/Import are the export and import of rail vehicles, their equipment parts and components as well as supplies and services related to rail vehicles: Passenger and freight cars, other rail vehicles, specific equipment, components and replacement parts for rail vehicles, diesel and electric locomotives, tracklaying machines, components, parts and replacement spares for tracklaying machines, diesel and electric driving gear, streetcar trains and cars, hydraulic gears and gearing units, spiral springs, annuler springs, laminated springs for rail vehicles as well as buffer springs, electrical equipment, special test stands and facilities, pallets and transport containers made of metal, scientific-technological services.

(2) The further objectives of Schienenfahrzeuge Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

## Article 3

(1) In all legal matters Schienenfahrzeuge Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Schienenfahrzeuge Exrort/Import in legal matters.

## Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for construction of heavy machinery and equipment following approval by the minister for foreign trade.

The above statute of Schienenfahrzeuge Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 30 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

SKET Export/Import

## Article 1

(1) This VEAHB is named SKET Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as SKET Export/Import). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) SKET Export/Import is a legal entity.

(3) SKET Export/Import has a capital stock. The capital stock amounts to:

25,000,000 (twenty five million) marks of the German Democratic Republic.

(4) SKET Export/Import is liable with its capital stock for any obligations.

(5) SKET Export/Import is subordinated to the general director of the VEB Schwermaschinenbaukombinat "Ernst Thaelmann" Magdeburg.

## Article 2

(1) The objectives of SKET Export/Import are the export and import of rolling mill plant, cement plant and equipment, machines and equipment for hot and cold processing, plant and equipment for wireworking and processing including cable, wire rope and steel cord production, machines and equipment for the manufacture of vegetable oils and fats, foundry plant, machines and equipment for the foundry industry and industrial complexes of machine construction as well as the export and import of scientific-technological results and services related to these products.

(2) The further objectives of SKET Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters SKET Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorise other employees or persons to represent SKET Export/Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed or dismissed by the minister for construction of heavy machinery and equipment following approval by the minister for foreign trade.

The above statute of SKET Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 20 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

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## TAKRAF Export/Import

### Article 1

(1) This VEAHB is named TAKRAF Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as TAKRAF Export/Import).

(2) TAKRAF Export/Import is a legal entity.

(3) TAKRAF Export/Import has a capital stock. The capital stock amounts to:

20,000,000 (twenty million) marks of the German Democratic Republic.

(4) TAKRAF Export/Import is liable with its capital stock for any obligations.

(5) TAKRAF Export/Import is subordinated to the general director of the VEB Schwermaschinenbaukombinat TAKRAFT Leipzig.

### Article 2

(1) The objectives of TARKRAFT Export/Import are the export and import of strip mining plant and equipment, cranes, products and equipment for internal transport and the scientific-technological results and services related to these products.

(2) The further objectives of TAKRAFT Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

## Article 3

(1) In all legal matters TAKRAFT Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent TAKRAFT Export/Import in legal matters.

## Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for construction of heavy machinery and equipment following approval by the minister for foreign trade.

The above statute of TAKRAFT Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 20 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

Textima-Export/Import

## Article 1

(1) This VEAHB is named Textima-Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Textima-Export/Import).

(2) It is domiciled in Berlin, the capital of the German Dmocratic Republic.

(3) Textima-Export/Import is a legal entity.

(4) Textima-Export/Import has a capital stock. The capital stock amounts to:

25,000,000 (twenty five million) marks of the German Democratic Republic.

(5) Textima-Export/Import is liable with its capital stock for any obligations.

(6) Textima-Export/Import is subordinated to the general director of the VEB Kombinat Textima Karl Marx Stadt.

### Article 2

(1) The objectives of Textima-Export/Import are the export and import of machines and plant for the textile industry, especially trade with complete textile plants, machines for spinning mills, weaving mills, knitting mills, hosiery mills, clothing manufacturing machines, presses, household and industrial sewing machines, trade in scientific-technical results in the field of the textile industry, also trade in technologies, processes and know-how.

(2) The further objectives of Textima-Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters Textima-Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Textima-Export/Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for construction of machine tools and processing machinery following approval by the minister for foreign trade.

The above statute of Textima-Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 15 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

## Zellstoff und Papier Export/Import

### Article 1

(1) This VEAHB is named Zellstoff und Papier Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as AHB Zellstoff und Papier). It is domiciled in Berlin, the capital of the German Democratic Republic.

(2) AHB Zellstoff und Papier is a legal entity.

(3) AHB Zellstoff und Papier has a capital stock. The capital stock amounts to:

8,000,000 (eight million) marks of the German Democratic Republic.

(4) AHB Zellstoff und Papier is liable with its capital stock for any obligations.

(5) AHB Zellstoff und Papier is subordinated to the general director of the VEB Kombinat Zellstoff und Papier, Heidenau.

## Article 2

(1) The objectives of AHB Zellstoff und Papier are the export and import of

-- Paper, cardboard, pulp
-- Coarse linter
-- Wood fiber
-- Sulfite waste liquor
-- Wastepaper
-- Machines for the paper manufacturing industry.

(2) The further objectives of AHB Zellstoff und Papier are all business operations which may, directly or indirectly, assist the goal of the enterprise.

## Article 3

(1) In all legal matters AHB Zellstoff und Papier is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent AHB Zellstoff und Papier in legal matters.

## Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for glass and ceramics industry following approval by the minister for foreign trade.

The above statute of AHB Zellstoff und Papier, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed.

Berlin, 1 August 1980 The Minister for Foreign Trade

Soelle

## Article 1

(1) This VEAHB is named Polygraph-Export/Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as Polygraph-Export/Import).

(2) It is domiciled in Berlin, the capital of the German Democratic Republic.

(3) Polygraph-Export/Import is a legal entity.

(4) Polygraph-Export/Import has a capital stock. The capital stock amounts to:

10,000,000 (ten million) marks of the German Democratic Republic.

(5) Polygraph-Export/Import is liable with its capital stock for any obligations.

(6) Polygraph-Export/Import is subordinated to the general director of the VEB Kombinat Polygraph Leipzig.

## Article 2

(1) The objectives of Polygraph-Export/Import are the export and import of plant and machines for the printing industry, especially the design, construction and equipment of printing works, including the relevant supply units, sheet rotary offset machines, platen rotary machines for offset and photogravure printing, bookbinding machines including assembly lines for book and brochure collation, guillotines, photo reproduction cameras and devices, devices and machines for the manufacture of printed forms, the export and import of scientific-technological results (licenses) for printing machine construction.

(2) The further objectives of Polygraph-Export/Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

## Article 3

(1) In all legal matters Polygraph-Export/Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent Polygraph-Export/Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for construction of machine tools and processing machinery following approval by the minister for foreign trade.

The above statute of Polygraph-Export/Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 15 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

ORWO Export-Import

### Article 1

(1) This VEAHB is named ORWO Export-Import, State Foreign Trade Enterprise of the German Democratic Republic (referred to in the following as ORWO Export-Import).

(2) It is domiciled in Berlin, the capital of the German Democratic Republic.

(3) ORWO Export-Import is a legal entity.

(4) ORWO Export-Import has a capital stock. The capital stock amounts to:

2,000,000 (two million) marks of the German Democratic Republic.

(5) ORWO Export-Import is liable with its capital stock for any obligations.

(6) ORWO Export-Import is subordinated to the general director of the VEB Filmfabrik Wolfen Fotochemisches Kombinat.

### Article 2

(1) The objectives of ORWO Export-Import are the export and import of photochemical and magnetic materials for recording and storing data, chemicals for the manufacture, development and processing of photochemical recording materials, especially photographic and cinematographic film--black/white and color--, repro film, X-ray film, photographic papers--black/white, audio and video tape, computer tape, photographic chemicals, photographic gelatin, gelatinous crushed bone and scientific-technological services related to the products listed.

(2) The further objectives of ORWO Export-Import are all business operations which may, directly or indirectly, assist the goal of the enterprise.

### Article 3

(1) In all legal matters ORWO Export-Import is represented by the general director or a deputy to the general director.

(2) The general director or a deputy to the general director may authorize other employees or persons to represent ORWO Export-Import in legal matters.

### Article 4

The general director and the deputies to the general director are appointed and dismissed by the minister for chemical industry following approval by the minister for foreign trade.

The above statute of ORWO Export-Import, State Foreign Trade Enterprise of the German Democratic Republic, is hereby confirmed and takes effect on 15 August 1980.

Berlin, 15 August 1980 The Minister for Foreign Trade

signed by proxy: Dr Beil

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GERMAN DEMOCRATIC REPUBLIC

# LESS SPECIALIZATION, MORE ADVANCED TRAINING FOR ENGINEERS URGED

East Berlin TG TECHNISCHE GEMEINSCHAFT in German Vol 28 No 9, Sep 80 signed to press 31 Jul 80 pp 5-8

[Article by Dr Wolfgang Biermann, member, SED Central Committee; director general, VEB Carl Zeiss Jena Combine: "Engineers' Training: The Whole Person Is Required"]

> [Text] The engineer's responsibility to society and his indispensable qualifications were the main topic of TG TECHNISCHE GEMEINSCHAFT issue No 8, 1980. As promised then we continue to deal with this topic by publishing the contribution below. Our author explains that objective performance compulsions must have their effect upon the job of each individual engineer . Consequently much greater demands are made on his sense of responsibility, technical knowledge and readiness for constant further education. These new criteria equally and without exception apply to managers also.

The full exploitation of the revolutionary potential of electrical engineering/electronics implies great demands on our engineers. We cannot possibly reduce these demands to the scientific-technological aspects alone of handling problems. As far as the engineer is concerned, he is called upon to commit his entire person. In addition to advanced technical skills, his abilities and diligence in applying his special knowledge, he is expected to bring to bear his political and economic reflections and actions, in other words his total societal sense of responsibility which must be indivisibly linked to his job assignment.

The engineer's ideological attitude to his job is basic with regard to his effective handling of the tasks of science and technology. It is therefore important to guide this attitude from the earliest days of engineering studies. Included in it is a strong wish to do well, recognition of new demands and future trends, job responsibility observed up to the complete and satisfactory integration of new developments in production, constant readiness to learn, responsibility cooperation in the collective and the readiness to accept social responsibility.

To solve the complex scientific-technological problems arising our engineers need a great deal of persistence, resolution, a healthy readiness to accept risks, and endurance. Young graduates are often shocked when faced with the fact that there is this severe compulsion. Challenging tasks come their way in the course of studies also; they are completed more or less well, but all of this work is theoretical. In industry, on the other hand, the problem persists and--by way of an exact reporting system--is kept on the agenda and reported in competition appraisals until satisfactorily resolved. The scientist who, within the reproduction process,works out the basic principle at the beginning of the chain, is released only when series production is running smoothly and the product shown to respond to market requirements. Like the manager he neither can nor may shirk his responsibility to the entire complex.

Our graduates must appreciate that the compulsion to accomplish the task is harder the closer one arrives at the moment of truth, the smooth flowing output of products able to hold their own on the world market.

One of the crucial features needed by an engineer is an open mind. Education and training must enable the future engineer to independently maintain contacts with his "neighbors  in the reproduction process" and follow up the conversion of his respective scientific discipline in the practical tasks of his own job. He must have some knowledge also beyond the limits of his specialty because, as we know, most reserves for scientific-technological advances nowadays tend to be located at the borders between the various special disciplines. In other words the engineer must be able to operate effectively also in those fields which are only beginning to evolve, and for which no specialized training is as yet available.

## Not To Specialize Too Early

All this requires sound basic training which--as experience in industry has shown--should not be restricted in favor of undue specialization at an early stage. Professional life lasts a long time and does not exhaust itself in the deepening pursuit of the diploma thesis. If someone wishes to creatively work for 40 years in the natural sciences and the technical professions, he must be ready to tackle assignments and problems which may well have been totally unknown at the time he first studied his subject.

Consequently the experienced scientists in our combine do not think it altogether desirable to hurry specialization for future employment by such methods as practical courses, papers and diploma work--all in the same field and on the same topic--if this implies an early restriction of interests. On the contrary, we consider it beneficial and necessary to change the field of study after a certain time and thus promote the readiness and ability to maintain intellectual flexibility.

Much on the job experience has taught us that several changes in the direction of study (provided this does not involve a totally different orientation are certainly neither injurious nor hampering. In fact they act rather like physical and mental stimulants to creative activity and are therefore generally conducive to greater efficiency.

Important and extremely topical is the call for an interdisciplinary work collective. Here the engineer is one of those responsible for the exchange of natural scientific and technical experiences. Top achievements in the new technology cannot possibly be developed in a vacuum. A Permoquant, a magnetic ball teleswitch GM, resulted entirely from the cooperation of interdisciplinary collectives and the combination of the greatest possible material and intellectual concentration.

This, however, is more than an organizational task; more than anything else it involves ideology. The efficiency of a graduate is therefore appraised also by the extent of his success in understanding his "neighbors" in the reproduction process and by his contribution to mutual understanding in the collective.

The efficiency of our national economy depends on the proper ratio of expenditure to the resulting functional value: The profit. A graduate must therefore have a clear appreciation of the correct cost ratios. In the final analysis the consumer determines the functional value of our products. Investment costs, operational costs, reliability, servicing costs and productivity are thus important factors deciding success or failure.

### Conceding Economics Their Proper Place

Our experiences teach us that graduates do not always correctly assess the importance of these considerations. It will therefore be necessary for the training of engineers to emphasize the economic concerns of the future engineers by practice-related indications regarding intensification in science and technology. In other words, a good engineer in industry is successful only if he is familiar with economics also. Precise cost-profit considerations should not be regarded as a necessary evil; actually they must be an integral element of the engineer's work.

I see the challenges to the graduate listed above as an undivided whole. The young graduate must strive to think and act in this unity of politics, ideology and economics.

At the same time we must be aware that this graduate can only be the result of close cooperation between industry and the educational facilities, whether universities or technical schools. It is here in particular that I see opportunities for the planned involvement of students in cooperative research resolutely directed to the social partner, for practical work in industry oriented to the greatest possible efficiency and independence; and I see these opportunities in the cooperation of experienced practicians from industry in the education and training of our future scientists and engineers as well as in the temporary cooperation of university and technical school instructors in the resolution of enterprise tasks.

We have recorded satisfactory successes in the organization of coordinated and long-term cooperation between academies, educational facilities and our combine. Contracts on specific scientific-technical cooperation represent the basis of these close links.

## Creativity Requires Wide Ranging Knowledge

The professional profile of the successful engineer includes sound technical knowledge and the ability to think creatively. The ratio of factual knowledge to creative imagination largely depends on the special field. There are differences between the engineer who works in research and development and one who controls a plant. This is not meant to be a value judgment.

As far as I am concerned creativity does not mean merely the development of a totally novel item. I consider it creativity for an engineer further to perfect an existing product, for example, or to further develop a product in quantitative parameters, or to make a conscious effort intellectually to digest existing information in order to use it to resolve the problems confronting him.

There is no such think as creativity as such. Creativity must needs relate to a specific fact. Creative performances are therefore impossible without extensive knowledge which must be constantly updated. At the same time this knowledge may not be confined to a restricted special field. The engineer must have a broad as well as sound basic knowledge and, as I noted earlier, should be familiar with neighboring disciplines also.

## Training by Challenging Tasks

I certainly consider great special knowledge an indispensable prerequisite for creative problem solving, but on its own it does not necessarily provide for creative thinking nor lead to a creative product. For creative thought it is important appropriately to link the various elements of knowledge, relate new findings to earlier knowledge, speculate even about apparently useless incidentals, be able to discard traditional modes of thought and integrate known facts in new contexts.

To my mind it is vital for student training and later professional practice to assign the utmost importance to this aspect. It is therefore necessary not only to acquire comprehensive specific knowledge but also the relevant methodological knowledge--in other words to know how properly to handle information. I consider this an interesting field for educational and further educational facilities, including the KDT /Chamber of Technology/. If the unity of technical-specific and methodological knowledge is taught and later practiced, we will have advanced a considerable step in the further improvement of the creative standard of our work.

In order better to convey methodological information, to practice the correct application of these methods and, additionally, to develop the whole person, we in our combine, for example, have successfully used various behavioral training programs for the purpose of further education. These include improvements in mental flexibility, the creativity of managers and their collectives, the social behavior of managers, political debating skills. To even more efficiently carry on this new and effective form of further education we have provided the appropriate modern technical prerequisites by the construction of a video training cubicle.

Of course I am quite aware that the most important educational method with respect to creative thought consists in advanced and challenging tasks to be assigned our graduates. The principle here is encouragement by challenge. At the same time we must be careful to ensure that creativity is never made a goal per se. The scientist and engineer must always be aware that really vital is not the novelty of the effect but the improvement in functional value.

The question whether an engineer does justice to his tasks must therefore be considered from two aspects, one objective, the other subjective. Economic requirements and market demands objectively call for advanced targets. Arising from them, again objectively, are the actual problems to be settled by our scientists and engineers.

From the subjective aspect it is a matter for management properly to motivate the engineer to meet the respective job target. He must fully identify with his task, on his own initiative trace possible reserves and set himself targets on the approach to solutions, which may well transcend the original job target.

Further Education--A Duty

Many of our scientists and engineers are so committed to their jobs. This attitude was brought about by managers who served as role models and constantly made the greatest demands on themselves. Moreover we have insisted on exact reporting of competition results, coupled with an effective system of material and moral incentives.

Systematic further education is an indispensable prerequisite for the continuity of such advanced achievements. In this day and age hardly anyone still believes that an engineer--however brilliant his performance at the university--has there acquired sufficient knowledge to last him his entire professional life. Consequently the further education of the engineer is not a matter of "may," "might," or "would like to," but an objective necessity to be regarded as an indisputable duty for the cadre himself as well as for the combine generally.

I do not think that there are ready made prescriptions for the precise form such further education is to take, neither regarding content, organization nor institutionalization. However, I would like to address three groups of specific issues. First of all further education within the immediate job process is and will always be most important. By this I do not mean merely the acquisition of job specific skills but also the steady study of the pertinent literature with a view to constantly following the development in the respective sphere, including related disciplines. Arising therefrom are specific obligations for the combine and the enterprises also. By modernizing our library and acquiring a large stock of the most modern technical literature, for example, we have provided the prerequisites for this type of individual further education. Management must ensure that the respective cadres are able to use these facilities and are indeed made to do so.

Helpful Work of the KDT's

In addition to this type of further education I consider it necessary also for every engineer to set aside a suitable period of time for comprehensive further study. If this is not done I foresee the danger of his declining into department-specific routine work, in other words an increasing constriction of his ability to carry out interdisciplinary creative and forecasting work. Such a decline would, at the same time, result in the reduced open-mindedness of the cadres.

In our combine such types of further education consist in courses of instruction in enterprise educational facilities, general or specific KDT course, courses at universities and technical schools, attendance at important conferences, the collection of experiences in other combines or facilities.

Hereafter I will briefly report the organizational forms by which the research center of our combine, for example, encourages further education:

--"Scientific Life." These are optional lectures for a selected group of auditors (dealing with advance research, economic problems, issues of management science, sociological topics, and so on).

-- Internal university and technical school further education for cadres. This involves obligatory and intensive courses for scientific staff only at intervals of 4 years; they last 1½ weeks. The targets of this measure are the combined utilization of job methodologies and the improvement of cadre flexibility.

-- Further education in microelectronics. Here selected cadres are delegated to other facilities for participation in special instruction courses or to gain experience.

-- Special examinations in close cooperation with the KDT. These take place 3 times per month.

As many engineers are employed in management functions at various levels, it is necessary also to take into account the management training of these cadres. Care must be taken on the job and by specific training measures to see that the appropriate junior cadres are gotten ready. At the present time we handle this as follows: We pick out young cadres who do outstanding work on the job and in social activities; they are then purposefully prepared for taking over management positions.

Though there certainly is no cut and dried recipe for types of further education, I do think that greater coordination of educational operations in a combine is desirable from the economic standpoint as well as with regard to the textual standards of education. Of course such coordination does not necessarily have to be accompanied by the centralization of education as such.

I want to emphasize first of all that further education must be relevant to the job and the function as well as oriented to pre-production. We have implemented this principle in our combine. The KDT activist group in the combine and the executives of the enterprise sections carry on further education in close coordination with the key issues set out by the combine management.

In this spirit KDT further education supports the further educational measures of the combine. Some of these measures are independently prepared and organized by the KDT. That was particularly important for the preparation of the collectives in research, development and material production for the manufacture of the equipment as per the microelectronic program assigned our combine. This task confronted all of us with completely new tasks which had to be accomplished within the briefest possible introductory periods.

The further educational measures organized by the KDT and coordinated with other university facilities in the GDR include, among others,

-- Instruction in the basic findings of microelectronics,
-- Integrated curcuits, microprocessors and their use,
-- The programming of microprocessors,
-- Hybrid circuits, and
-- Micro computers.

The target is the preparation of the theoretical bases for development work regarding the use of micro computers in our devices.

The KDT committees in our combine lent their support to the "microelectronics consultative agency" in Erfurt. At the same time a consultative office for microelectronics was established at the research center of the VEB Combine Carl Zeiss Jena, which provided practical instruction on the micro computer.

The development of top achievements and the transfer of the next generation of microelectronic devices involves new demands on the educational measures carried out by the KDT in research centers and device producing departments.

Later in 1980 we will start to train university and technical school cadres in our research center to become software specialists in the course of 6 months programs. It is our aim to train 10 software specialists per product group.

These pre-production oriented further educational measures derive from the long-range development conceptions of the main products and the intensification conception of the combine. They are a valuable contribution by the socialist engineers organization to the achievement of the central leadership targets of the combine earlier described. Good results were recorded by the members of the socialist engineers organization in our combine working with KDT project passports. That is an initiative movement of the KDT activist group which, by the concentration of efforts, stimulates additional activities by KDT members and collectives for the accomplishment of key targets of the plans science and technology and socialist rationalization.

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## GDR PARTICIPATION IN MOZAMBIQUE TRADE FAIR PUBLICIZED

Maputo TEMPO in Portuguese No 516, 31 Aug 80 pp 12-15

[Advertisement: "The GDR at FACIM 80"]

[Text] The Economy of the GDR--High-Powered Trading Partner

The GDR is taking part for the fifth time in the International Trade Fair, FACIM, in Maputo. Some 10 foreign trade companies are being presented to the international public. There are two basic reasons for this participation, which is growing year by year. The first is the lively economic development in the GDR itself, evidenced by the fact that the GDR currently produces in a single month as much merchandise as it did in all of 1949. Its position as one of the leading nations in the economic sector implies participation in the international area of activity, through increasingly active foreign trade. In this regard, economic relations with the young nations play a prominent role.

And this is the second reason why the GDR participates in the Maputo international fairs.

After the signing of the friendship and cooperation accord between the GDR and the People's Republic of Mozambique, on 24 February 1979, economic cooperation developed very rapidly, to the benefit of both peoples.

### TRANSPORTMASCHINEN

### Highly Advanced Modern Technology

The foreign trade firm TRANSPORTMASCHINEN EXPORT-IMPORT maintains close relations with partners in the People's Republic Of Mozambique, relations which have been developing continuously since 1977. The first trucks, Model IFA W50, manufactured by the Ludwigsfelde automotive firm, arrived in Maputo in December 1977, and have been seen since then on all the highways of Mozambique, where over 1,500 of them are currently in use.

In the current Maputo fair, TRANSPORTMASCHINEN EXPORT-IMPORT is exhibiting a representative selection of its line of cargo vehicles.

### MULTICAR Line With Several Variations

Two products of our industrial complex are sure to attract the interest of specialists in all countries. First there is the MULTICAR IFA 2548/20, a sanitation and sprinkler truck which can be used to clean sidewalks, narrow streets, plazas, etc. As a cleaner, the sprinkler truck can also be used to clean transit signs, metal guards and facades, as well as to maintain parks. Its tank holds 1,800 liters of water.

The other vehicle exhibited at the fair is the MULTICAR IFA-25. It has a 4-cylinder, 4-speed diesel engine and up to 33.1 kw of power, guaranteeing speeds up to [speed apparently dropped] km/h. At the customer's request, a "ralentis" gear can be installed as an accessory. The vehicle can be fitted with a wide variety of accessoreis.

### Highly Regarded: Trailers

The foreign trade firm TRANSPORTMASCHINEN EXPORT-IMPORT rounds out its exhibit with trailers from the VEB ANHANGER UND SPEZIALAUFBAUTEN WERDAU, for use in highway transport, agriculture and container transport.

## FORTSCHRITT LANDMASCHINEN

### Bringing Together Research, Production and Foreign Trade

The VEB FORTSCHRITT LANDMASCHINEN industrial complex, created in 1978, combines production in the highest tradition with modern science and technology and foreign trade. Some 65,000 workers are turning out machines and equipment for use in harvesting grains, potatoes and beets, ground-breaking machines, mechanized lifting equipment and various equipment for the food industry.

### E 512 Combine Proved Useful in Rice Harvest

The necessary increase in agricultural yields calls for the application of high level agricultural technology. Hence it is not surprising that the E-512 combine [reaper-thresher] is attracting interest and buyers in many countries. It can be used to harvest any crop requiring threshing; i.e., grains, corn, oleaginous fruits and legumes. The E 512 can process wheat at 12.5 kg/s and corn at 15 kg/s. It is among the most powerful combines in the world, easily handling record harvests of 100 to 120 dt/ha. FORTSCHRITT's modern machines proved their usefulness, for example, in the rice harvest in the Limpopo region.

### New Even More Powerful and Economical

The ZT 300 tractor is on exhibition at the FORTSCHRITT LANDMASCHINEN pavilion. Its engine capacity has been increased to 112 cv, or 82.5 kw, on all models. The ZT 300 is not unknown in Mozambique. Only a few months age, 30 Mozambican tractor operators completed a 2-week training course, conducted near Maputo, to familiarize themselves with these tractors, which will be used in silviculture. The powerful ZT 300, with 4-wheel traction, can be seen here at the Maputo fair. Over clay and sand-clay terrain, it has developed traction power of up to 13 km. [as published]

### Sure and Simple

In addition to displaying two interesting types of apparatus for processing potatoes, and a silo, the exhibit includes two milking machines and a mobile group of milking machines for use in the pasture. With the milking machines, a 100-percent increase in labor productivity is guaranteed.

### The GDR at FACIM 1980

The GDR is participating in the Maputo International Fair, FACIM 1980, with a collective and representative official exhibit. As a traditional exhibitor in Maputo, it is primarily presenting machines and equipment geared to the needs of the national economy of the People's Republic of Mozambique.

The following firms are participating:

Maschinen Export
Technocommerz
Transportmaschinen Export-Import
Elecktrotechnik Export-Import
Robotron Export-Import
Textilcommerzi
Intermed Export-Import
Unitechna
Limex

The exhibit includes fork lifts, small-scale lifting equipment, cranes (models), excavators, agitators, electric and diesel units, pumps and compressors, air-conditioning, ventilating and cooling units, small "MULTICAR" vehicles, trailers, the ZT-300 tractor, milking machines, communications technology, accounting technology, typewriters, drafting equipment, textiles, blankets, pharmaceuticals, materials for medical use, and an information booth.

### TAKRAF and BAUKEMA

### In 30 Years, Over 3,000 Port and Shipyard Cranes

The GDR TAKRAF industrial complex, with 40,000 employees, specializes in the production of open-mining equipment and transport, transhipment and warehouse machinery and equipment. VEB Kranbau Eberswalde produces a line of cranes.

In the last 30 years, the firm has produced about 3,000 port, shipyard and construction cranes, which are in operation in over 20 countries in the most varied climatic zones of four continents. The firm, the major manufacturer of port cranes in Europe, is exhibiting two port cranes for the handling of merchandise in volume and in bulk, including containers, at the Maputo pier.

Last year, 14 rotary portal cranes were installed in the Angolan ports of Luanda and Lobito. Some 50 meters tall and with a 25-meter reach, the cranes can handle 6.3 tons of cargo. With the TAKRAF cranes in operation, the above-mentioned ports' capacity to transfer cargo was improved by 30 percent.

## High Capability With Little Maintenance Required

VEB Verlade und Transportanlagenbau Leipzig, another firm in the TAKRAF industrial complex, has been producing forklifts for 20 years. Its production line includes diesel-powered forklifts with a 6.3 ton capacity. In operation in over 35 countries under extreme weather conditions, these are reliable machines. Specific characteristics which are internationally recognized include their ability to move up and down rapidly, their power, and the fact that they require little maintenance. The diesel-powered forklift exhibited at this far has a 3,200-kg capacity, a speed of 20 km/h, an ascending speed of 20 to 25 meters per minute and an ascending capacity of 20 to 25 percent. [as published]

## Small-Scale Lifting Equipment of Great Interest

TAKRAF is also exhibiting an interesting collection of small-scale lifting and short-distance transport equipment at the Maputo fair. It includes, for example, hydraulic and electric jacks and rackrail lifts, essential for transport within factories. The appliances are inexpensive, operate under all conditions and can handle large loads.

## More Rapid and Economical Construction With BAUSEMA Equipment

The GDR has a strong industrial sector for construction equipment. At FACIM 1980, BAUKEMA is exhibiting the UB 1232 universal excavator, manufactured by VEB Schwermaschinenbau Nordhausen. This excavator, a powerful and fully hydraulic machine, enables more efficient operations in soil preparation, mining and industrial and residential construction, as well as construction of highways and infrastructures in general.

## Applications in Many Branches of Industry

Civil construction calls for increasing quantities of high-grade cement. BAUKEMA offers powerful interior and exterior cement mixers. A selection of these machines is on exhibition at the fair.

TECHNOCOMERS

## Products for a Better Climate

Several endorsements from clients in over 25 countries of four continents stress the quality of ILKA products, from the GDR Luft und Kaltetechnik industrial complex. The NEMA plant of Netzschkau is one of the oldest and largest manufacturers of axial ventilators, particularly suitable for use in industrial sections, work rooms, storage depots, laundries, dry cleaning establishments, bath houses, restrooms, large kitchens, agricultural enterprises and, with certain limitations, even movie theatres and restaurants. The firm produces about 200,000 axial ventilators per year for export to many countries. The ventilators are distinguished for their low energy consumption, broad range of applications, light weight and high adaptability.

The same firm produces icemaking machines, which have proven their usefulness in the GDR and abroad. These modern appliances, producing ice continuously rather than cyclically, have a capacity of 5 to 20 tons per day. The small shell-shaped pieces of ice, up to 3 mm thick and about 5 cubic centimeters in volume, have a relatively large surface, permitting efficient cooling. The ice can also be transported long distances at high temperatures.

Exhibiting at the Maputo fair, VEB Kuhlanlangenbau, Dresden, is showing refrigerators. The GLN-T model, created especially for use in tropical countries, is already working satisfactorily in the People's Republic of Mozambique.

## Relations With 40 Countries

The "Pumps and Compressors" industrial complex, comprising all the producers in the sector in the GDR, maintains relations with 40 countries. The firms produce a series of appliances and complete installations for the chemical and petrochemical industries, pipelines, agriculture, water treatment, metallurgy and electric power plants. The fair exhibit includes two portable compressors, with a capacity of 10 cubic meters per hour and 240 cubic meters per hour, respectively.

## Models on Internationally Renowned Products

Offering products of international renown, "Karl Liebnechy" VEB Schwermaschinenbau of Magdeburg is familiar in many countries throughout the world. The industrial complex is among the strongest manufacturers of motors in Europe, producing each year diesel engines with a total capacity of 750,000 kw. On view at the Maputo fair is a model of a diesel electric power assembly, type 6 VD 18/15. It has a potential of up to 400 kv.

Useful in agriculture, it can operate at temperatures as high as 60 degrees centigrade.

## UNITECHNA

### Machines Producing Everything From Fibers to Clothing

The dedication of 30,000 workers, engineers and scientists, as well as a tradition of over a century in the manufacture of textile machinery, insure trustworthy cooperation with clients the world over. A complex comprising all the firms in this field in the GDR, TEXTIMA is synonymous with modern technology, characterized by internationally known and highly valued products. The machines include such attractions as a broadloom for wool, model 1505/6, an automatic knitting loom with a "Jacquard" arrangement, model 54 806, and a knitting machine, Kokett type. TEXTIMA's modern technology also means the MALIMO and LIROPOL technologies, and FLOROPOL, a new fabric combining polyester and secondary materials. The fabric was developed in the GDR, and TEXTIMA is the sole manufacturer.

### Complete Installation By A Single Supplier

VEB TEXTIMAPROJEKT has designed, supplied and installed 200 complete industrial plants. Over 75 cotton- and wool-spinning mills have been installed in 18 countries. Over 60 modern plants have been constructed in 19 countries, for knitting, weaving, finishing and garmentmaking. In 1979, TEXTIMAPROJEKT signed a contract with the Mozambican government to furnish a textile complex.

Upon installation, the complex will produce 25 million meters of cotton and mixed-fiber textiles. TEXTIMA is taking part in the Maputo fair, offering information on textile facilities, primarily complete installations, and exhibiting textiles produced on GDR machines.

## ELECTRONICS

### Always in Touch With Technical Progress.

For some years, electric/electronic technology has recorded the most rapid development of all industrial sectors in the GDR, representing 10 percent of all industrial production. Last year, GDR exports of electrotechnical equipment to the People's Republic of Mozambique increased sixfold over 1978, an indication of the dynamism of its foreign trade. Prominent in this area are communications technology and the installation of electric power plants. Currently in progress is the Nacola-Nampula project, where the GDR is assisting in the installation of 110-kw stations and high tension lines.

### Everything Depends on the Right Connections

The rapidly growing need for information has led to the improvement of communications systems. In the GDR industrial sector, RFT, a firm devoted to communications and transmission technology, has contributed much to this improvement, occupying a prominent position in the world. The RFT is internationally recognized, primarily for the installation of communications systems and technical equipment in over 20 countries.

On exhibition at the Maputo fair is an automatic telephone switchboard, alternating-current telegraphy installations, telegraphic linking apparatus, two-way call installations of various kinds, electric power supply equipment, field telephones and the most varied products of telephone communications technology.

## Reception With Minimum Effort

Shortwave communications technology is another important department in our exposition, including mobile and stationary equipment to establish medium- and long-distance connections under the most varied climatic conditions. For example, we are exhibiting the RKD 300 receiver, a table model that can also be installed in automobiles, motorcycles and boats.

## ELECTROTECHNICA

## Programs For Today and Tomorrow

Products of the GDR VEB ROBOTRON industrial complex have proved their usefulness in all computing and accounting work. At the Maputo fair, we are presenting high-quality products such as the ROBOTRON 1720 and 1711 automatic billing and accounting machines. The latter combines electronic calculating, computing and programming units, controlled by microprograms, and an electric typewriter. Based on our experience, gained over many years, and using the advantages of electronics, we have developed the automatic accounting machine, ROBOTRON 1355. Designed for use in small and medium businesses, it is a table model with numerical control and free programming.

## Handsome Printing--

--is guaranteed with our mechanical and portable typewriters. ROBOTRON 20, with a 47-cm carriage, and ROBOTRON 20 [sic], with a 32-cm carriage, permit fast and pleasant work. Key pressure is always even, insuring uniform letters. ERICA 115 is the successor to ERICA 105, already known in Mozambique. For the first time at FACIM, we are displaying a drafting machine of the series ORDINAT III, with a movable carriage, outstanding for its precision and ease of maintenance.

## INTERMED

## One-Third of Production For Export

With about one-third of its production for export, the GDR pharmaceutical industry supplies pharmaceuticals and medicines to over 60 countries on every continent. The 15,000 workers in this branch produce a broad range reliable, the products are exported under the trademark GERMED and offer security for patients and doctors. In 10 years, the offering has been expanded by 200 new or modified medicines. At the INTERMED display in Maputo are exhibited human and veterinary medicines, including soporifics and antidiabetics, measles, tetanus and cholera vaccines, and vitamin preparations. The veterinary medicines include not only remedies for sick animals but preventive medicines and products to strengthen the resistance of the livestock.

### Medical Technology For the Good of Mankind

Under this motto, we are exhibiting orthopedic aids, material for medical use, surgical suture material, bandages and various types of adhesives at the Maputo fair. Materials for medical use include an artificial skin, SYS pur-derm, of particular importance. This material has proved its usefulness in clinics in the GDR, and was awarded a gold medal at the Spring Fair in Leipzig this year.

### TEXTILCOMMERZI: 4,000 NEW DESIGNS EVERY YEAR

Many high-quality products, including a wide variety of textiles of natural and synthetic fibers, are exhibited at the Maputo International Fair. They illustrate the variety and excellent quality of the work of the GDR textile industry. Every year, 4,000 new designs in textiles are brought out.

Some of the products have already won a secure place in the Mozambican market. We note, for example, cotton towels, blankets of acrylic fibers and wool-cellulose, and light-weight cotton fabrics already cut for sewing. Again this year, these products are included in the presentation of the GDR textile industry, represented here in Maputo by the foreign trade firm TEXTILCOMMERZI. Among the products presented for the first time are work clothes, such as pants, coveralls and shirts.

### LIMEX

### GDR Specialists Investigate Geological Deposits

In addition to construction equipment, the GDR is also offering technical scientific services at this Maputo fair. Attending FACIM for the first time, the LIMEX firm undertakes civil construction projects, giving technical advice and also assuming responsibility for execution of such projects.

Research and exploitation of mineral wealth are of substantial importance in the economic development of the People's Republic of Mozambique. LIMEX has experience in this area, in conducting geological surveys and in elaborating geological, minerological and civil construction studies. It is also equipped to conduct hydraulic and geophysical studies to locate sources of petroleum. GDR specialists have already been in Mozambique for several years, assisting in the investigation of mineral and coal deposits. LIMEX is responsible for sending specialists and equipment to Mozambique to increase coal production.

Through its planning studies, LIMEX is also participating in the construction of the Mocuba textile complex and the Tete/Mtundo urban project.

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HUNGARY

# UTILIZATION, ROLE OF TURNOVER TAX EXPLAINED

Budapest FIGYELO in Hungarian No 38, 17 Sep 80 p 5

[Article by Dr Imre Vincze: "Concerning the Role of the Turnover Tax"]

[Text] The turnover tax--as a form of social net income coming between the producers prices and the consumer prices--plays an essential economic policy and social policy role.

The socialist countries for several decades and many West European capitalist countries for the past 10 to 15 years have developed their national price and financial systems so that the full net income is not realized in the price of production tools in trade between enterprises and thus the producers prices are relatively low. The full net income is realized in the price of consumer articles and services. The segregated social net income, the turnover tax, appears between the producers price for articles and services in popular trade and the consumer price--as reduced by the commercial profit margin. Theory justifies such a construction of the price and financial system primarily for the following reasons:

--A significant proportion of the social product reaches its final consumption site with purchase by the populace so it is justified to realize a significant proportion of the social net income here;

--This procedure has a certain economic incentive effect, primarily in regard to investments and export; and

--The procedure is economically useful because it eliminates superfluous movement of money.

In addition to the above the turnover tax is a useful tool because with its aid the consumer prices for certain retail articles and popular services can be made to deviate--for social policy reasons--from the producers prices.

## PRINCIPLES AND PRACTICE

In Hungary it is a general basic principle of consumer price policy that the consumer prices should correspond, in their ratios, to the producers prices and that consumer prices and producers prices should change together. In addition to realizing this general principle the political and social relationships of socialism justify over the long term that certain preferences and limiting discrimination be realized in the consumer price system and that this be done more broadly than is done in countries with nonsocialist social systems.

A general turnover tax should apply to all those products and services in popular trade, the consumer price of which can be determined by an adjustment to the producers price. A turnover tax substantially higher than the general one should apply to those articles and services the consumer price of which should be higher than the social value, in order to limit consumption. For those articles and services for which we want a consumer price lower than the social value the turnover tax can be lower than the general one, or they can be sold without a turnover tax or with a consumers price subsidy.

We should change consumer prices, especially the price level of basic foodstuffs, fuels and services (rents, transportation) which have a sensitive effect on the standard of living, over longer periods of time and even then the magnitude of the change should be the subject of careful consideration. It follows from this that there is a significant deviation between the price system being realized and the requirement formulated theoretically as the long-range goal in connection with producers and consumer prices.

### The Goals of the Price System

There were significant changes in consumer prices in the middle of 1979, taking into consideration the new producers prices, and again on 1 January 1980.

The intended goals of the price changes were:

--To create a two-level price system, that is to realize in the price for articles and services in consumer trade a net income which was of considerable magnitude on the average, which is the basis for levying the general turnover tax;

--To reduce the number of articles and services the consumer price of which deviates disproportionately from the social value and which enjoy an unjustifiably large consumer price subsidy; and

--To reduce the excessive differentiation in the turnover tax and to realize the general turnover tax for a broad range of goods, or rather to realize a turnover tax which deviates from the general one for only a few large commodity groups.

The realization of these goals began on 1 January 1980 and the process is continuing today. It is worth reviewing, by commodity group, the turnover tax system now valid. The turnover tax keys are expressed in percent of the consumer price, as reduced by the retail profit margin; this is also the basis for consumer price subsidies. In the case of services the basis for the turnover tax or consumer price subsidy is the consumer price of the service.

The great majority of basic foodstuffs enjoy a consumer price subsidy, the only exception being a 5 percent turnover tax for salami. The price subsidies for other items are as follows: beef, 48 percent; pork, 28 percent; sausages, 26 percent; smoked and cooked meats, 34 percent; canned meat, 63 percent; poultry, 27 percent; cows milk, 38 percent; milk by the glass, 63 percent; cheese, 60 percent; butter, 81 percent; jam and preserves, 36 percent, canned vegetables, 12 percent; canned foods, 44 percent; sugar, 13 percent; bread, 8 percent; rye mixture breads, 17 percent; and baked goods, 5 percent.

These data show that to a significant degree the state supports the consumer price of basic foodstuffs and that they differ to a large degree from the producers prices. It should also be noted that the artificial fertilizers, crop protection substances and protein fodders used by the farms enjoy significant supports which do not appear as production costs in agriculture. On the basis of the magnitude of the supports for agricultural purchasing prices alone, the trade in foodstuffs which has no turnover tax can be reckoned as enjoying preferential producers and consumer prices.

The turnover tax keys for luxury articles are as follows: brandy, 88 percent; wine, 34 percent; beer, 67 percent; coffee, 22 percent; tropical spices (pepper, clove, cinnamon, etc), 52 percent; and tobacco products, 67 percent.

A significant step was taken on 1 January 1980 to reduce the excessive differentiation in the turnover taxes for clothing articles. A general turnover tax key, which now stands at 23 percent, was prescribed for yarn and thread, textiles, knitted materials, dry goods, underwear, outerwear and other readymade articles. There were a few exceptions, primarily for infants and children's clothing. In general, the latter are sold tax-free while there is a 50 percent consumer price subsidy for infants clothing and Pioneers uniforms.

The general turnover tax key for footwear is 22 percent while children's footwear enjoys a consumer price subsidy of 81, 58 or 39 percent, decreasing as the size increases.

There is now an 11 percent turnover tax key for furniture industry products while baby carriages, baby beds and feeding chairs enjoy a 134-178 percent consumer price subsidy and other children's furniture enjoys a 70 percent subsidy.

Since 1 January 1980 the general turnover tax key for iron and technical goods has been 11 percent. A zero percent turnover tax is enjoyed by a relatively broad range of products (that is, they are sold tax-free). This includes metal and wire materials, electric cord and cables, electric stoves, electric washing machines, the Trabant Hycomat automobile, the [illegible] wheelchair, baby carriages, and gas water heaters and stoves.

The turnover tax for passenger automobiles is 31 percent, but the total consumers turnover tax per car cannot exceed 80,000 forints. The turnover tax for jewelry and objects made of precious metal is 40 percent.

Coal is sold with a consumer price subsidy ranging from 194 to 498 percent. Household coke enjoys a consumer price subsidy of 277 percent. Brick, tile, slate and building fasteners are sold tax-free. There is a 17 percent turnover tax on pine lumber but building carpentry products are tax-free.

In the area of household chemical articles and cosmetics there is a 5 percent turnover tax on wetting and rinsing agents and detergents. Materials for dishwashing are tax-free. There is a general turnover tax of 20 percent on cosmetic and body care articles, but baby preparations and tooth preparations are tax-free. There is a 50 percent turnover tax in the price for cologne and perfume, face and lip care preparations, and manicure materials.

In general the price paid by the populace covers only 15-20 percent of the producers price for medicines. Special supports cover the costs of running pharmacies.

In regard to transportation, a full price rail ticket enjoys a consumer price subsidy of 175 percent. There are different consumer price subsidies for various special tickets, ranging from 25 to 900 percent. There is a 10 percent turnover tax on long-distance bus transportation, but the turnover tax is not calculated in the schedule for international routes. Season tickets for students enjoy a 410 percent subsidy. Budapest tram and bus transportation and tram and bus transportation in the larger cities (Miskolc, Szeged and Debrecen) enjoy a consumer price subsidy ranging from 133 to 286 forints, calculated per 1,000 passenger kilometers. The consumer price support for air tickets to socialist countries comes to 240 percent.

Central heating in Budapest enjoys a consumer price subsidy of 220 percent, while in various megyes the consumer price subsidy established for central heating is between 209 and 331 percent. The consumer price subsidy for central hot water service is 192 percent while in various megyes it enjoys a consumer price subsidy between 235 and 342 percent.

## Deviations To Be Considered

The net turnover tax for articles in popular trade--that is, the balance of the turnover tax realized and the price subsidy extended--is 7 percent. So at this time this is the magnitude of the bilevelism realized in the price of products sold by retail trade. On an average popular services enjoy a consumer price subsidy of 32 percent. A total net turnover tax of 1.6 percent is realized in the price of retail products and services.

Reviewing the present development of the turnover tax by commodity groups we can say that social preferences are being realized in it but the range of deviations is much broader than we have prescribed for the long term and in several respects the magnitudes of the deviations are a matter for concern. Even following the adjustment of 1 January 1980 the bilevelism of the price system is still tiny, as an average, for articles in consumer trade.

The turnover tax receipts expected in 1980 come to 65 billion forints--45 percent from luxury articles (alcoholic beverages, tobacco goods and coffee), 16 percent from clothing articles, 16.2 percent from chemical articles and 14.7 percent from iron and technical goods. Consumer price subsidies are expected to come to 50 billion forints--25.7 percent for basic foodstuffs, 29.8 percent for transportation (rail and urban passenger traffic), 13.6 percent for popular services (largely electric power, sewage, central heating and hot water), 13 percent for fuels and 11.5 percent for medicines.

## Temporary Price Subsidies

The large consumer price subsidies now entailed in authoritative prices for foodstuffs and services could be moderated only in the event of a modification of consumer prices. Changing the consumer prices of these articles and services of key importance can take place only within the framework of standard of living and income policy measures. We can also reckon with the fact that the producers prices for these articles and services will increase while the consumer prices for them remain unchanged temporarily. In this case there will be an increase in the price subsidy.

The degree of support for fuels (coal and coke), central heating, rail transportation and rents is excessive. But changing these can be done only within the framework of standard of living policy measures.

At this time the general turnover tax key being realized for clothing articles is higher than we imagine it to be in the future. But we cannot decrease this by itself because it would come out of the planned receipts of the state budget.

We must regard it as a justified requirement that the consumer price of consumer goods in the free price form should change simultaneously with and to the same degree as changes in the producers prices. In the case of free price articles we should emphasize the normative or relatively stable character of the turnover tax.

It may happen--as it has frequently happened in past years--that in the interest of maintaining the planned development of the standard of living we will have to initiate additional reductions in the consumer prices--reductions which did not figure in the plan--so that increases in producers prices or import prices do not appear in the consumer prices. In past years--and in a few cases this year already--this has been done by modifying the established turnover tax or price subsidy keys.

## With Attention to the Standard of Living

The problem with such a modification of the turnover tax keys is not only or even primarily that it decreases the planned turnover tax receipts of the state budget or increases the consumer price subsidy, but also that it has further increased and continues to increase the complexity of the turnover tax system and makes it impossible to maintain the combination and simplification of the turnover tax keys realized in the course of the price adjustments.

It would be useful if other methods could be used in the future for the temporary neutralization of increases in producers prices and import prices. One method might be to establish temporary consumer price subsidies. The temporary key might supplement the normative consumer turnover tax keys (or consumer price subsidy keys); that is, the two would be realized together. By "temporary" we mean that as soon as possible they would be abolished and we would return to the base keys. Another method might be to stick to the established turnover tax (or price subsidy) keys despite the increase in producers prices while extending temporary support to the articles in question from a central price policy fund.

These methods could be used even in the case where the consumer price of certain articles was temporarily moderated in the interest of realizing the planned change in the consumer price level without there having been a reduction in the producers price or import price of the articles affected.

Both the use of temporary price subsidy keys and the creation of a price policy fund would serve to preserve the relative stability and normativity of the turnover tax system.

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HUNGARY

## MANPOWER MANAGEMENT PROBLEMS, MEASURES DESCRIBED

Budapest FIGYELO in Hungarian No 34, 20 Aug 80 p 3

[Article by Dr Imre Gyuricza: "Manpower Management: Signs of New Development"]

[Text] During the first half of 1980 significant differentiations arose in the production developments of industrial enterprises. At some enterprises production has increased by 40 to 50 percent, while at some other companies it has declined by 5 to 15 percent. Our chief economic policies produced a number of initial results in the area of the differentiation of production. These results manifest themselves in the increased production of sought-after products, and in the reduced manufacturing of products that are more difficult to market.

The productivity of enterprises that are increasing their production dynamically (20 to 40 percent) has generally increased even faster. The size of their wage adjustments, however, has hardly differed from the average.

Company management during the first half of this year was characterized by a great degree of uncertainty, circumspection, and by a reduction of economic activities. Because of the late appearance of production prices (1 April), in the course of the first quarter the companies lacked the necessary orders, and solvent demands were lukewarm both in the area of means of production, as well as consumer goods.

For these reasons, a significant portion of the production mills--in line with the experiences of earlier years--continued to produce on the basis of the production programs developed for the first quarter, and in many instances they produced only for the warehouses. This means (and meant in the past) considerable risks for the companies--at least until the sale of their goods.

Although they are still somewhat behind the simil-r period for the previous year, orders for the second quarter surpass those for the first quarter.

## Defensive Strategy for the Enterprises

We can expect a further differentiation in industrial production. A dynamic increase in production is planned first of all by those companies that also produce for exports to the capitalist states. The management of wages is also characterized by circumspection. The majority of enterprises are resorting only to such wage increases as are based on wage reserves and on labor force reductions. From the point of view of company management, increasing effectiveness and the development of profits contain many factors of uncertainty. Wage increase possibilities derived from these are generally kept in reserve by the enterprises, with the intention of using them only during the second half of the year. In spite of the careful approach by the companies, there was a relatively high degree of variation in the level of wages, amounting to between -5 and +15 percent. A portion of the enterprises intends to pay wage increases in the form of sliding wages--either partially or fully.

The wage levels of various companies and the variations in these levels are more intimately connected with the above-described wage management, than with differences in efficiency. Today, it is customary to resort to the utilization of labor and wage reserves, which involves fewer risks. With the decline in the companies' reserves it is expected that efficiency will increase, i.e. changes in profits will have an impact upon the size and level of the wages. It seems that most of the companies are proceeding along the path of least resistance. During the first half of the year, while trying to improve results, it proved easier to increase the average wage by reducing the labor force.

But in the long run, no company that pursues the path of rational planning can allow itself this type of defensive strategy. Thus, in the near future--under the compelling impact of new and harsh economic and market conditions, and in the wake of the lukewarm economic activities that characterized the first two quarters--the enterprising spirit of the companies will doubtlessly increase, and thus the relationship between efficiency, profitability, and personal incomes will become tighter.

## The Demand for Labor Is Decreasing

Economic developments during the first two quarters have led nationwide to a more rapid decrease in the number of those who are employed in industry and in the construction field than in the preceding years. As a result of the development that began in 1974, and that has stabilized since, the number of those employed in industry has decreased by 100,000 in the course of the past 6 years. In spite of this, no unemployment problems exist. This decline in the labor force was the result of a natural process, and not even production was influenced by it negatively. It enabled a more rapid increase in productivity than earlier to take place, as well as improvement in the quality of employment.

In light of the reduced rate of economic growth in 1980, a further improvement in productivity was possible only through an economical utilization of human labor, i.e. through further reduction in the number of those employed in the area of production. The modified economic indexes made it the interests of all companies to reduce the number of superfluous workers. This goal was defined by the companies as follows: "We are in need not of numbers, but a working force."

During the first 6 months of this year, there were 2.9 percent fewer people employed in industry than during the comparable period of the previous year. An even greater rate of employee decline was realized in the construction industry (4.2 percent).

The decline in employment in industry and in the construction industry is basically a "forced path," which is the result of the tightness of the labor goal, i.e. the transfer of labor to the nonproducing branches, and of the growth of productivity.

In spite of the increased decline in the labor force, there are still significant labor reserves at the functioning enterprises. The uncertain economic conditions, and the difficulties in production, in material supplies, and in marketing that characterized the first 6 months were viewed by most companies as being of a temporary nature. And because it is impossible to secure labor freely and at anytime from the available "labor pool" for the purposes of supplying the possible labor needs of new production goals and developments, the companies naturally try to retain their labor reserves.

In light of the exhaustion of the labor pool, and in view of the official measures directed toward the lessening of the search of labor, the level of employment is expected to decline somewhat. This will make it possible, even in case of a transformed production structure and unchanged quantity of production, to increase the average wage, and thus create better conditions for differentiated incentives, which--especially among individuals--do not as yet manifest themselves to the desired degree. It is increasingly frequent in the wage and labor management of the companies to separate efficiency and social considerations.

## More Realistic Plans for the Size of the Laobr Force

Industrial companies have prepared more realistic plans than earlier concerning the size of their labor force. They have taken into consideration the fact that for years their labor force has been shrinking, and they have also calculated into their plans for the current year an expected decline. This shrinkage of the industrial labor force is influenced to a considerable degree by the growing attraction of the nonindustrial branches. In this process, the conscious factor is represented by the hiring limitations of the companies. These limitations may apply to the employee, to the individual trades, in areas of employment, as well as to those who have left prior employment. The elimination of vacant and unnecessary jobs is also in the process of being realized. (As an example, within 1 year, 3,000 jobs have been terminated in Hajdu County).

small industrial companies and cooperatives have reacted in a more sensitive fashion to these altered conditions. Significant differentiations appeared in their production, productivity and wage level of various companies and cooperatives. They have experienced both outstanding results and regressions. Their sensitivity to the markets, and their ability to conform is at a higher level than in the case of the large enterprises.

The attitudes of the small and large companies are also different in the area of wage management. While the large companies--probably because of their greater labor reserves--generally tend toward the reduction of their labor forces, small companies and cooperatives are characterized more by the desire to retain and even increase slightly the number of their employees. The chief causes of this phenomenon include their greater flexibility in adjustment, and the fact that the development of the "background industry" demands first of all an increase in the production of small- and medium-size companies. Moreover, at the small companies (especially at the cooperatives) the narrow cross-section of production is constituted by the labor force.

Company plans concerning the labor management of various plants are in many instances incalculable even for the directors of these plants. It seems that the development of the economic activities of individual plants depends in many instances, and to an excessive degree, upon the decisions of the company headquarters. This creates problems, especially in the labor management policies of those counties where a sizeable portion of the labor force is employed at these plants.

## Regional Characteristics

In light of the moderation in the demand for labor, in 1980 workers are more attached to their jobs than they were earlier, and the irresponsible switching of jobs has declined considerably. This resulted in the further moderation of fluctuation, especially in the ranks of the physical worker.

During the first 6 months, the number of those hired by industry and the construction industry was generally below the number of those who left their jobs. The companies have decreased their labor force by limiting their hirings. This process, which is essential for the national economy, is basically in accord with the aspirations of the workers--especially the young workers--that urges them to find employment primarily in areas other than production. Even so, there are 17,000 vacant jobs in Budapest alone in the tertiary sector.

In the Great Hungarian Plain and in the regions of southern Trans-Danubia--because of their lower level of economic development--the hiring potential of the tertiary sector is limited. This is particularly so in the villages. For this very reason finding employment there is a much more protracted process, and it is more common for workers to move back and forth between their homes and various remote places of employment. Such regions include certain areas of Borsod County, the northern section of Bekes County, the southern villages of Somogy County, and Veszprem County's villages of the Bakony region.

[Youth Employment]

Truly superfluous labor exists only in Szabolcs-Szatmar County. The county's favorable demographic conditions and its abundant supply of labor have made it possible for the county to engage in rapid industrialization in the past. True, this year the number of actively employed has increased by 500, but the county still has a potential labor reserve of 6,000 persons. This is especially true in the region of Fehergyarmat, Vasarosnameny, and to a lesser degree Mateszalka. The county's experts believe that the reason for this is the postponement of industrial developments and of new investments. The supplementary industrial branches of collective farms could play a significant role in raising the level of employment.

Preliminary surveys that examine the employment potential of young workers all indicate that those youngsters who complete only grade school, those who refuse to continue their studies and drop out, and those who graduate from trade schools will continue to have no difficulty in finding employment even in the future.

Those who graduate from technical high schools as chemical technicians, and those who finish economic high schools or high schools specializing in shorthand and typing, on the other hand, will find it more difficult to find employment in certain areas, and it will take them longer to do so. The graduates of gymnasia will also find it increasingly difficult to be employed in administrative capacities. On the whole, however, there is nothing to prevent them from seeking technical retraining, and then finding employment as physical workers. The employment of youth is especially critical in the Great Hungarian Plain, in the south Trans-Danubian counties, and in Borsod County. But the county councils still believe that they can solve these employment problems with local resources.

Past experiences reveal that many employers have slowed down or ceased their hiring of new workers because they intend to employ young people who, at the same time, are also paid low wages.

[Qualification Changes]

We cannot draw long-range conclusions from the data of a half year. But in analyzing the developments in labor management we can tell that many of the earlier positive developments were speeded up (e.g. the decline of the number of industrial workers, the moderation of fluctuations, etc.), at the same time creating new phenomena. In certain areas, because of the declining demand for labor, labor supply demand came into balance. Shortage of labor is among the declining economic problems of the companies. Companies that have altered their product structure because of economic considerations (e.g. in machine industry and light industry) have generally also witnessed the regrouping of their internal labor force. But regroupings among individual companies have not become commonplace. True, some of the regions have experienced work force reductions of between 10 and 150 persons, but the resulting problems were solved locally and without stress. The laid-off personnel were regrouped and placed in new jobs.

Changes in the employment structure are still achieved primarily through the relocation of workers and through "demographical changes." Past experiences indicate that the companies are planning qualitative changes in their work force. They are trying to get rid of untrained and undisciplined workers, and to hire in their place well-trained and well-disciplined ones, including a sizeable number of young people. It will become even more difficult to place the so-called "low quality" workers, who at the time of hirings will increasingly experience rejection on the part of the employers. Should the above projection become a reality, these workers, or at least a portion of them, will undoubtedly change their customary attitudes. But there will be also those who will refuse to comply with the increase demands and the continuous activities. They will undoubtedly turn to occasional labor, will be employed in "low prestige jobs," and thereby relieve some of the labor problems in these areas.

National experiences tell us that the companies are not planning work force "reductions" significantly above those of the previous years. As such, for the time being, we do not have to face problems of significant unemployment.

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# IMPORTANCE, REGULATION, DEVELOPMENT OF PRIVATE AGRICULTURE DISCUSSED

Budapest KOZGAZDASAGI SZEMLE in Hungarian No 7-8, 1980 pp 908-922

[Article by Gyula Varga: "The Significance, Regulation and Chief Developmental Questions of Small Agricultural Production"]

[Text] The sphere of small agricultural production includes the household plots of producer cooperative and special cooperative members, the auxiliary farms of those not working in agriculture (including the production taking place on the subscription fields of state farms), the small farms of pensioners and the production of individual peasant farms which can still be found in small numbers.[1] The role of the household plots and auxiliary farms is the major one within the sphere of small production. Together they account for more than 90 percent of it. Within this the production of the household plots is decreasing in both volume and ratio, while that of the auxiliary farms is increasing. The relative decrease in the role of household plot production is due to the swift decrease in the number of producer cooperative members, primarily of pensioners. The reduction in the ratio of the peasant population within the sphere of small producers is accompanied by the consequence that small agricultural production itself is tied less and less to the peasantry, to those whose chief occupation is agricultural.

Small agricultural production comes to somewhat more than one third of the agricultural production of the country. This ratio decreased a bit in the past period and we can reckon on such a decrease in the future also. Despite the decrease in the ratio the volume of small production has been increasing continuously and very considerably for years. According to our estimates this growth process need not be turned around in the future. In the decade ahead one can hypothesize a small increase followed by a stagnation, depending on the recognition given to the economic regulation and environment are developed or preserved. What must be done can be formulated relatively precisely if we have objective information about the present situation and the motivations and trends of the internal transformation of small production.

Before all else, fundamental importance attaches to the circumstance that in the future the production of those whose chief occupation is not agricultural will increase. This will result in a radical transformation of the motives for and conditions of the production of small producers. The common farms of the producer cooperatives always had an influencing, integrating and regulating role on the household plots of their members. But it is necessary for the large agricultural operations and the general consumers' and marketing cooperatives carrying out trade tasks to undertake such an organizing, integrating role in regard to the auxiliary farms, which are of increasing significance, and to do this in accordance with the new demands which are appearing at a higher level. To a large extent we do not have today the economic and legal regulators necessary for this, regulators based on strictly economic foundations and mutual advantages which would encourage large enterprises and small producers to such an integration.

From the viewpoint of small production the second most important group of questions is the matter of prices and taxation, which is to say the profit interest of production. Two principles should be adopted to develop and preserve this. In the first place the work devoted to small production should provide those doing the work with at least as much personal income or wages as are enjoyed under large scale conditions for the same work. In the second place we must follow the principle that there should be a largely uniform price system for small production so that we can and should guarantee a justification for and the social competitiveness of it. By uniformity of the price system I mean that the acquisition prices for agricultural tools and the marketing (purchasing) prices for agricultural products should be substantially identical so that differences should reflect only the differences deriving from the quality advantages of large volume and uniform large-scale product purchases and sales. I also consider it an important requirement that the consumer prices for foodstuffs should always develop in accordance with the current cost relationships. Consumer prices which are forced down by supports put production for one's own supply in a disadvantageous situation; this represents a decreasing part of the volume of small production, but it is still the cheapest activity, making rational use of the most byproducts, waste and resources which cannot be used elsewhere.

## The Development of the Volume and Structure of Small Production

In the course of the past 15 years the growth rate of agricultural production in Hungary has developed very favorably (by international standards). This includes the very dynamic expansion of the large agricultural operations, 5.3 percent per year, and the modest but not to be underestimated growth of small agricultural production, which can be estimated at an average of 1.1-1.3 percent per year. As a result of this differing rate of growth there has been a fundamental change in the ratio of large scale and small agricultural production. In 1961 small production came to 84 percent of the volume of large scale production; in 1971 it came to 61.8 percent; and since 1975 it has come to only 53-55 percent. Despite the decrease in the ratio the gross value of small production has increased by almost one third in 15 years.

Table No 1.

The Share of Small Producers in the Production of Crops and Animals (at 1970 prices)

| Year | Crop Production | | Animal Husbandry | |
|---|---|---|---|---|
| | Value in billion forints | Percent of national production value | Value in billion forints | Percent of national production value |
| 1970 | 22,277 | 33.0 | 29,052 | 46.5 |
| 1971 | 22, 79 | 30.4 | 30,889 | 47.0 |
| 1972 | 23,.09 | 29.7 | 30,665 | 47.1 |
| 1973 | 24,255 | 28.8 | 32,303 | 47.5 |
| 1974 | 23,551 | 27.8 | 33,134 | 45.8 |
| 1975 | 22,785 | 25.6 | 34,373 | 46.4 |
| 1976 | 20,602 | 25.0 | 34,371 | 45.0 |
| 1977 | 23,299 | 25.3 | 37,262 | 45.1 |
| 1978 | 24,653 | 26.3 | 39,273 | 45.8 |

Source: KSH MEZOGAZDASAGI ADATOK, 1971-1979

In accordance with our goals and economic principles, formulated earlier but still valid today and for the future, the large operations have expanded their production not to the detriment of or in most cases even to replace small production, but rather primarily to benefit the productivity of the national economy as a whole.

The primacy of the production of the large agricultural operations as compared to small production is obvious. But this primacy does not mean it is exclusive, nor does it mean that the difference in rates of growth is given once and for all. There can be no doubt that a deliberate modification or change in the growth rate of small production is justified depending on the current capacity of the national economy. In the present situation it seems a justified solution if we moderate the growth rate of large-scale production to a level in line with the capacity of the national economy and achieve in small production a development which is most favorable to maintaining the balance situation of the country. There are two important aspects to this. We should exploit the possibilities lying in the lower assets demand of small production and we should make use of those manpower reserves which can be freed or acquired for the purpose of small production, but which in the great majority of cases cannot be turned to industrial production or large-scale agricultural production.

Special attention should be turned to changing the ratio of crop production and animal husbandry within an increase in small production. According to the data in Table No 1 the share of small producers in crop production shows an unambiguous declining trend. In contrast to this the share of their animal husbandry stagnated between 1971 and 1978 while the value of production increased by 30 percent.

The traditional cultures are declining more than the average within crop production; these are the ones which the large operations can handle with high labor productivity and favorable economic results. Here the small operations have finally lost the competition to the large farms. But in gardening production, which is based primarily on the live work capacity of the small farms, there will continue to be "free competition" based on a labor force which society cannot make use of in practice in any other way. A more rational division of labor is developing between the large operations and small production. The large operations produce the products which can be mechanized while small farms produce the products which require hand work. It may be worth noting that on the basis of this example we might consider the creation of auxiliary and craft industries which our present economic practice does not offer examples of, although the justification for them is rather obvious.

For years the significance of keeping animals and producing animal products has been increasing on the small farms, partly based on the manpower capacity already mentioned and partly to make use of the buildings in the villages. The raising of cattle and sheep has been stagnating or declining within animal husbandry, while pork production and poultry raising are of increasing importance. From the viewpoint of our export the production of rabbit meat by the small farms is of definite importance, which is a very good example of how a branch producing an income of many millions of dollars can be built up in this sector with little central expenditure in a surprisingly short time.

## Transforming the Purpose of Small Production and Differentiating Among Producers

The transformation of the purpose of production merits attention in addition to and in close interdependence with the reordering of the structure of small production. The significance of supplying one's self is unambiguously decreasing while the volume of commodity production is greatly increasing (according to the data in Table No 2). According to the data the production by the small farms of a number of important foodstuff primary materials reaches or exceeds the volume consumed by an inhabitant of the country on the average! So in the case of a number of articles small production is a direct source of an export commodity base.

Table No 2.

Gross Price Trade (at current prices) of Products Deriving From Small Agricultural Production (data from producer cooperative household plots and auxiliary farms only)

| Category | Yearly average in billions of forints | | | Average annual increase in percent comparing 1977-1978 to 1967-1970 |
|---|---|---|---|---|
| | 1968-1970 | 1971-1975 | 1977-1978 | |
| Plant products | 4.611 | 5.333 | 8.579 | + 7.2 |
| Plow land prod. | 1.[illegible]56 | 1.108 | 1.325 | - 0.1 |
| Green vegetables | 622 | 1.279 | 2.158 | +18.6 |
| Fruits | 1.164 | 1.632 | 2.531 | + 9.5 |
| Wine | 1.217 | 1.134 | 1.742 | + 4.3 |
| Animals and animal products | 1.517 | 16.019 | 23.850 | +12.9 |
| Products of cattle raising | 8.632 | 4.701 | 6.969 | + 7.9 |
| Products of swine raising | 3.376 | 7.866 | 10.775 | +19.4 |
| Products of poultry raising | 2.007 | 2.304 | 3.512 | + 6.8 |
| Total, small production | 13.128 | 21.352 | 32.429 | +11.2 |

Source: KSH MEZOGAZDASAGI ADATOK, 1970-1979

It is a significant characteristic of commodity production by the small farms that the ratio and volume of goods going into central sources are increasing. The organization and integration of small production are increasing at the same time too. The socially accepted price, cost and income levels and ratios determine the expenditures for and release of their production and keep them within well-controlled limits.

An internal differentiation of producers is taking place also together with the strengthening of the commodity-producing character of the small farms. It is characteristic of the trend of the changes within the internal differentiation that the household plots and auxiliary farms--which developed historically from household plots or at least on their model--which once produced primarily for self-supply--are being replaced by or supplemented by small farms engaged in commodity production which are specializing and increasing in size. On the other hand, there is an increase in the number of smaller little farms which are of less economic significance, compared to the chief employment of the owner, which represent a transitional stage between production and gardening or animal raising conducted as a hobby. The economic purpose of the latter is not even to provide self-supply and supervision of them is quite spotty. It is certainly worthy of note that

These two trends of differentiation require great circumspection when developing economic regulation and influence. It is obvious that the commodity producer, the person engaged primarily in self-supply, and the haphazard producer, largely unaffected by economic considerations, will react in completely different ways to the development of the economic environment. These three types of small operations are less and less sensitive, in accordance with the above listing, to external economic effects although--and this cannot be emphasized enough!-- the fate, the present and future, and the trend and magnitude of the internal differentiation of small production as a whole must be treated as an economic question.

## The Production Forces of Small Agricultural Production

The manpower base of small agricultural production is provided by 1.5 million families. The small producers now use live work equivalent to about 270 million work days. The great majority of this is extra work done after working hours; the second most important factor is work done by pensioners and members of the household. It appears from a study done on this theme by the Central Statistics Office that the social status of the small producers is very diverse and well balanced. We can find among them peasants, people with two incomes, workers and intellectuals, pensioners, members of households and people who belong to every stratum and class of society.

This quite varied composition of small agricultural producers means that this activity is not monoploized by the possibilities of acquiring income; on the contrary--it is open to the broadest strata. Tamas Kolosi, in a manuscript study for the committee of experts mentioned above, could justly state: "Participation in the 'second economy' is not stratum specific. More or less every group has a chance to participate.... Naturally there are significant differences within these possibilities to participate and so the income differentiation deriving from it is not decided merely by factors of will. But this differentiation is not between the chief social strata; rather, it takes place within them."[2] It is worth adding to the above that in a few cases (for example, in the case of gardening with plastic sheet greenhouses) the credits and investment supports tied to permanent marketing contracts can reduce to a very large degree the above mentioned differences in conditions for participating.

Naturally, the productivity of the work used in small agricultural production lags behind the social average. The value of production per hour is three times greater in the large agricultural operations than it is on the small farms. This reflects the lower intensity of the work used, the significant proportion of work done by children and older people, the lower level of production equipment and the greater ratio of branches requiring live work, which are significant in small production. Taking into consideration the productivity of work the manpower expenditure used on the small farms is equivalent to the output of about 300,000 to 320,000 active earners.

If we compare the two main types of small production, the household plots and the auxiliary farms, then we find that each family member works an average of 5.1 hours per day on the former and 3.7 hours per day on the latter. The amount of work spent on the household plots bears a close relationship to the degree of urbanization and the magnitude of the activity in the two main branches. A direct relationship can be shown between distnace from the city and the time spent on household-plot animal raising. A larger degree of commodity production in animal raising is characteristic primarily of the village and rural household plots. The small producers around cities engage primarily in gardening-commodity production.

In addition to criteria characterizing the structure of the family labor force the undertaking of small production is also influenced, naturally, by other outside factors, difficult to quantify and largely belonging to the economic environment. It strengthens the enterprising spirit if the need to acquire durable consumer goods and housing encourages those with various main occuptionations to supplement their income. Such activity with such a motive can be expected, in the case of both agricultural and industrial workers, primarily among those living in villages or barred from access to state housing. The most general method of protecting themselves against disproportions in real income due to the unrealistically low rent for state housing, the preferential electric power costs of urban inhabitants, the still strongly supported central heating fees, etc. is to undertake extra work in production or services, including small agricultural production.

In contrast to their approximate one third share in total agricultural production the small farms have hardly one sixth of the land area of the country at their disposal, although this area includes a greater than average share of the plantation and garden areas (roughly 60 percent). There can be no doubt that small production represents the most intensive way of using the land. It merits special attention that the small farms can also use successfully areas with natural conditions which make them unsuitable for large-scale cultivation. In regard to the future of small production favorable conditions would be offered by releasing to individual use lands abandoned by their owners or owned by the state but not used, such as hillsides and barren areas, something that has not been done enough yet for various reasons. Use for small production of areas unsuitable for large-scale cultivation might increase productive capacity and take care of the environmental protection of a number of areas being destroyed and it might also contribute to bringing down the swiftly increasing price for plots of land. The best method for making these areas available might be offering long-term leases (for 50-100 years) if there were enough area to lease.

In addition to all this, it might be worth reconsidering whether there is any sense in excluding in advance the possibility of acquiring ownership of land by those whose chief occupation is not agricultural when what we really want to prevent is the breaking up of areas suitable for large-scale production!

The availability of buildings is a very important element in the production capacity of small producers. According to a 1972 survey by the Central Statistics Office, one could find on the small farms 472,000 square meters of cattle and horse shed, 1,488,000 square meters of swine housing, 375,000 square meters of wine storage area, 192,000 square meters of outbuildings and 1,652,000 square meters of other farm buildings (poultry houses, lumber rooms, etc.). Based on the average size of sheds and pens the small producers had housing for about 1.4 million large animals and about 6 million swine. We do not have a full picture of the state and quality of these buildings. A survey conducted by the Kaposvar Agricultural School and the Production Policy Main Department of the Agricultural Research Institute extending to 10,000 small farms provides approximate information about this. The following percentages for 1976 and 1977 list the animal buildings of the small farms in groups of good, medium and weak (hardly useable):

| | Good | Medium | Weak | Total |
|---|---|---|---|---|
| Cattle space | 38 | 49 | 13 | 100 |
| Swine space | 44 | 45 | 11 | 100 |
| Poultry space | 44 | 45 | 11 | 100 |
| Sheep space | 30 | 53 | 17 | 100 |

The supply of machines for small producers is perhaps the weakest point for the future of this sector. The equipment of the farms is at an extraordinarily low level--according to the unambiguous testimony of the limited data available. Tools for soil cultivation and machines for transportation are especially lacking.

One of the biggest problems of the small producers is the lack of transportation capacity. The number of draft horses has decreased to a minimum, partly due to lack of fodder and partly due to the taxes (which are the same for a horse as for a 35 kW passenger car). So teams represent in general very little transportation capacity in most villages. For various reasons the producer cooperatives are not happy to undertake transportation of the products of scattered small producers. It seems justified, from these considerations, to encourage small producers willing to do it to keep one or two horses by abolishing the horse tax. A breakthrough solution can be expected only from mechanization. It would be worth while to initiate domestic manufacture of small tractors which could be used to transport small quantities in addition to doing basic land work. This is also necessary because the increasing demand can hardly be satisfied from import. It is difficult to explain the reluctance of our agricultural machine industry to manufacture small machines when we think that for years it has struggled with an open or hidden capacity surplus and if we consider that the surrounding socialist countries do not manufacture small agricultural machines either. In my opinion (and many share it with me) we should permit small producers to buy the universal tractors, not larger than 35 kW, scrapped by the large operations and we should provide service activity with them. This would indisputably serve the economic and political goals of society better than to continue to follow the present practice of sending to the smelting works thousands of tools which could still be used.[3]

We can say with little exaggeration that passenger cars represent the most important transportation tools of the small agricultural producers. It would also be worth considering that in the future we should develop passenger car import so as to increase therein the ratio of cars which can be used for production purposes too (for example, vans, cars equipped with trailers, or overland cars).

The mechanization of animal husbandry is limited to a few grinders, shellers and beet cutters although self-feeding and self-watering equipment is now spreading, which does not so much ease the work as aid the time use of the small producers.

There has been some favorable change in machine supply to small producers since 1975. But it is increasingly obvious that technical development and rational mechanization play a key role in the development of small production. It is all the more worthwhile to aid this and to try to satisfy the existing demand because the source of the investments, in contrast to the accumulation realized in other areas of the national economy, derives entirely from savings from personal incomes.

It would appear that the contradiction which may derive from the use of modern machines and the small size of small production might be resolved in two ways: by common use of the machines (the spread and popularization of this has been completely ignored thus far) and a suitable selection of the size of the machines. Loaning machines represents the most rational and most efficinet way to overcome the restricted capacity (in addition to which it might prove the justification of and way to technical development for a wide circle of small producers). It hardly needs to be proven that group machine use is more advantageous the less supply is able to satisfy machine demand.

Trade in machines is also made difficult by the fact that the work of enterprises working in foreign and domestic trade and belonging to different ministries is rather uncoordinated and there are simultaneous chronic shortages and excessive stockpiling. Parts supply and the provision of service are largely unsolved also. These factors are also the reason why there continues to be a spread of homemade tractors, powered "little wagons," powered cultivators, powered mowing machines, pumps, etc. which are accident-prone and which operate with very bad parameters.

But in addition to all this there has been an increase in the trade of tools, small machines and equipment sold to small farms in recent years, increasing from 670 million forints in 1976 to 980 million forints in 1978 (calculated at current prices). And about half of this was of domestic manufacture. There is an especially great problem with acquiring tools, small machines with internal combustion engines, garden tractors and milking machines. Unfortunately, knowing the program of the Ministry of Metallurgy and the Machine Industry, we cannot count on the necessary progress and the chances of import from the socialist countries are very modest also.

It is worthy of note that according to our surveys of imports burdening the import allotment for the populace and serving tool supply for small production they are serving small production itself only in part and to an ever decreasing degree. The reason for this is that large-scale agriculture, and especially communal services (public sanitation enterprises, hospitals, park maintenance units, etc.), also require small machines which we market here at home as tools for small producers. So it appears that we are solving the problem of supplying tools for small farms but others (not unnecessarily) are buying these tools.

Energy supply is becoming an increasingly important factor for production around the house. It would be worth studying what possibilities there are for more rational electric power use by small producers, in production also. It would be possible to realize great savings if cheaper automatic thermostats could aid production in plastic sheet greenhouses or the regulation of air-space heating which is sometimes necessary in small-animal raising. Of course, the development of expert advice is also an important condition for all this. Today large-scale agriculture often jealously guards ("protecting social property") those by-products which could be used very well in small production and which are destroyed by the large operations with the use of more or less energy. Much oil and electric power could be saved by using straw, corn stalks, twigs and wood industry scrap if the small producers could get these materials and if the boilers and burners suitable for using them were manufactured, sold and popularized.

The fodder base is the most important factor in animal raising by household plots and auxiliary farms. Fodder needs, in regard to quantity and quality, are influenced by the peculiarities of the several branches of animal husbandry, storage conditions, the type of small farm, the large operation background surrounding them and the production goal of the small farms. The manifold problems of fodder supply to household plots and auxiliary farms differ according to whether we are talking about feed grain, bulk fodder or rough fodder. The much debated problem of fodder supply for small farms is virtually coeval with the development of large-scale agriculture.

With the strengthening of the large agricultural operations and the improvement in their management level it has become possible to cover to an ever increasing degree the increasing fodder needs of the small farms while supplying the swiftly developing large-scale animal husbandry. This is aided and made realistic by the fact that trade between the large operations and the small farms increasingly takes place at current producers prices and it is incorrect to continue to say that the small producers are being "supported" by the fodder sales of the large operations.

Another much debated question is how efficiently the small producers use the fodder. In this connection we still meet with rather extreme opinions, as in regard to fodder use by the large operations too. There can be no doubt that the small farms use a lot of chance fodder (kitchen scraps, plow-land by-products, garden wastes) for animal products produced up to the level of self-supply, which would not fit into a large-scale technology. But even in the case of those producing for self-supply this makes up only a small part of the supplements fed.

The use of fodder of by-products and waste does improve the efficiency of meat production. But the general tendency in the case of commodity production, with the increasing magnitude of production, is for small producers too to acquire the necessary fodder from outside sources. The fodder expenses of small farms geared up for commodity production are similar to or identical with those of large-scale production. And the facts rather clearly refute the hypothesis according to which the small producers use fodder wastefully, worse than the large operations. The small producers do buy feed grains at trade prices, which is to say more expensively--due to the small volumes--than the large operations. But with uniform producer prices, the size of the income depends primarily on how the fodder is used, so we can hardly speak of waste. In addition, with the given prices for animal products, the small farms react better and more quickly than the large operations to changes in the price of fodders. We might interpret this to mean that efficiency requirements are truly realized in just this production sphere.

The fodder needs of the small farms are closely connected to the volume of products produced. In the future this connection will become even closer because in the sphere of small production the production of corn, which represents the feed grain base, is gradually being reduced. This is also true because more productive types and hybrids are spreading in the two branches using feed grain (swine and poultry raising). Better quality feed with a higher protein content is needed to produce these.

## The Organization and Integration of Small Production

Of the small farms the household plots of the producer cooperative members work in the most organized fashion. Their link to the common farm is well known together with the legal and economic side thereof. It should be stressed that the economic link is being strengthened now as a result of the organizing activity of the large operations, primarily as a result of their increased interest in organizing commodity production. There is also increasing organizational activity by the large agricultural operations, primarily the producer cooperatives, in organizing commodity production by the other small farms in their operational areas. But their interest in this is much less than it should be and is essentially limited to seeing that a part of the large operation super-price for a few products stays with the large operation under the heading of organizing production. This, however, is far from sufficient for the large operations to be able to play an active, production-influencing and organizing role in place of the present more or less passive accommodation. (A number of legal problems need to be remedied in this area; for example, what should be classified as secondary occupation, what should be classified as an odd job, etc.)

The general consumers' and marketing cooperatives (AFESZ) are playing an ever more important role in organizing the small agricultural producers. Contracts extending for several years are spreading. The state investment support which can be used in a few branches is increasing the organization of the small producers also; a condition for this is that the small producers sell to the purchasing enterprises a determined quantity of goods within a certain time. The activity of various foodstuffs industry enterprises in integrating small production is rather rare and, unfortunately, is not spreading. The meat industry, primarily, is carrying out such organization, but most often through an AFESZ or a producer cooperative. Unfortunately our foodstuffs industry, which is too centralized and too concentrated, has still not found a true partner in the small producers. For this reason there are frequent complaints about the shortage of products which demand live work and are typically small operations (berries and stone-fruits, small animals, etc.). To sum up we can say that the small farms are increasingly linked to the sphere of large socialist operations, including the large agricultural operations, the cooperative trade enterprises and sometimes the foodstuffs industry enterprises and trusts, but that this is far behind the rational limit of the possibilities.

However favorable the changes have been for small producers in regard to the economic regulator system or the free demand market, this in itself is not enough to increase commodity production. In our homeland the era of free market trade and of producer marketing is declining and is increasingly limited to those areas where state and cooperative trade cannot satisfy consumer demand because of the deficiencies of the shop network. To an increasing extent the illusion of a market in the large cities is given by middlemen disguised as the original producers. For the most part the real original producers are represented by old retired villagers with products which are poor in both quantity and quality. All of this means that well functioning, organized trade is at least as important for the small producers as are favorable income prospects. However favorable the potential profitability of the products, if the product cannot be sold or can be sold only late, the income is lost or substantially reduced. Thus marketing security is of fundamental importance to small producers and, fortunately, this coincides with the social interest attaching to the stability of small production and its purposeful development. But to a large extent we lack an enterprise structure, enterprises which organize and integrate production, which would exploit and integrate these two interests.

It is important that we create or substantially improve the economic and legal conditions necessary for this for the large agricultural operations, the AFESZ'es and the foodstuffs industry enterprises.

## The Efficiency of Small Producer Work and the Income of Small Producers

An extraordinarily large degree of differentiation characterizes the efficiency of work done in small production and the utilization of the tools of production used here. Frequently even the meaning of measuring this efficiency is dubious because the human work and tool capacity being used here are such that they could not be used socially any other way and as such the degree of efficiency is unambiguously secondary and can be neglected. But this is less and less true on the small farms specializing in expanding commodity production where frequently they expand the production base with new investments. The efficiency of this work, on the other hand, can be called unambiguously good, because if it were not, their production would not be competitive with the production of the large socialist farms. The competitiveness of these small commodity producing farms is unambiguous and obvious. It is worth noting that to a large extent we help the large operations with significant super-prices thus balancing out those extra burdens which we place on the large farms with the tax system and the system of withdrawals which have developed. Thus, in the final analysis, the price system creates truly uniform income conditions.

According to our experiences and surveys the efficiency of the small farms reaches and often surpasses that of the large operations in those branches and for those products demanding much hand work and unique individual treatment. But small production as a whole shows a labor productivity which is a good bit lower than that for large operations, partly because of the much lower level of equipment and partly because the composition of the labor force is radically different from that of the large operations. Those working on the small farms are largely pensioners, juveniles or those with decreased work ability.

Together with the increase in the ratio of commodity sales by small production there is an increase in material use and in the purchase of tools of production of industrial origin. So the ratio of new value decreases within the products produced and the ratio of assets increases. In 1970 the gross income per 100 forints of production value was 63 forints; in 1977 it was only 55 forints. The small producers are trying to balance the decreasing profitability of small production by increasing the volume of production. This represents the chief incentive for the branch concentration and specialization of the small farms.

Most unfounded and contradictory opinions concerning the income which can be achieved in small agricultural production have developed in unprofessional public opinion and even among experts who are not agricultural specialists. The most dangerous of the views which look with prejudice on the income relationships of the small operations are those extreme positions one of which presumes that these incomes are unacceptably large socially and unjustified compared to the work. According to another equally prejudiced position the forced efforts performed in overtime by the small producers--lacking other sources of income--are recognized by society only fractionally.

Of course it is easy to find unique examples since we are talking about almost 1.5 million small farms. Perhaps there are more than a few extreme cases where we can find great differences. But the income situation of the great majority of the small producers is rather balanced, at least in regard to their accommodation to conditions and circumstances. If this were not so it would be difficult to explain why the volume and structure of small production have developed favorably--without administrative intervention--for years with a basically uniform price system for agricultural products, with the given consumer prices and under conditions of uninterrupted good foodstuffs supply levels.[4] If we evaluate this relatively even development of small production as a basically positive factor in the formation of the balance situation of our national economy, and if we accept that this position rests on economic foundations, then we can realistically reject the above extreme views, and must continue to reject them, in whatever form they appear, in economic or political guise, openly or indirectly. Then we must take cognizance of a part of the real problems while it is our obligation to remedy the remainder.

One can understand on a logical basis the large internal differentiation in the expenditure and profit relationships of small producers and the income differences which result. The quality of the land on the small farms varies from the most outstanding to the worst, unsuitable even for large-scale cultivation. Those working here include those with the greatest expertise, capable of satisfying virtually the individual needs of plants and animals, and also old people and children and lay hobbyists. The tools vary from modern automatic tools to ancient ones and so the efficiency of their use varies. All of this is transformed into a single average figure when we try to see how the work spent on small production relates to the value of the products produced. According to the survey done in 1972-1973 the value of the product of one hour of work came to 16 forints, which is about one third that of a product of work done on the large operations. Since at that time use by the producer came to almost half of the production value, the gross income for one hour can be estimated at about 8-9 forints. Knowing the expenditures of the small producers which burden the gross income (for example, land tax, income tax, wine tax, community development contribution, etc.) the sum remaining translated into wages can be put at about 7-8 forints per hour then, and 9-10 forints per hour today. If we calculate this sum for the work done by those of working age, largely after working hours, then it proves to be very little. But if we consider that about 60 percent of the work done on the small farms is done by pensioners, members of the household, and dependent family members then the value realized for the work can be called satisfactory.

Naturally these data are only approximate; there are problems which can hardly be bridged over in calculating expenditures; even establishing the volume and value of the product runs into difficulties (especially uncertain is the measurement and valuation of production for self-supply). But there is sufficient foundation for us to say without fear that the income requirement for commodity production work on the small farms is a good bit more than this if it is to be done by those of working age. We can roughly calculate that the income requirement for commodity production work done in small production does not deviate from the total personal income per unit of work organized on the social scale. It is probable that in the future the income requirement for commodity producing work will increase relatively--because what is involved is largely overtime. This will further increase the difference within small production, between the valuation of live work in self-supply and in commodity production, and between the necessary income content of articles characteristically produced for self-supply and those characteristically produced as commodity production.

The chief guarantee, in addition to a uniform price system, that small agricultural production will not become, despite the tendentious statements still repeated about it, a source of real economic tensions is that production around the house, small scale activity, is a realistic possibility for many people. The ratio of those keeping small animals who have no land at all is considerable and gardening with plastic sheet greenhouses near the house requires very little land. Approximately every second family in Hungary has a small farm. In a significant number of cases the supports given to small producers or the credits available to them make it possible for a small farm just getting started to obtain good equipment for production.

We can regard the regulation and guidance of small agricultural production as reassuringly settled. The new system of small operation taxation which has been working for a few years is carrying out its tasks satisfactorily. But one can criticize the fact that the basis for taxation is the gross value of commodity production. At present the small producers are taxed not on the size of their income but rather on the basis of the size of commodity production. The weak point of the present system is that the tax brackets do not follow the increasing price level; that is, the same size tax burdens smaller and smaller incomes. This requires swift correction and it could be carried out very simply. But it is a correct principle of the tax system that it gives preference to the work of the family and puts a progressive tax on hired work. In practice the use of outside manpower is not at all characteristic of small agricultural production. It is thus worth noting that reports of the spread of hired work have been heard recently. Because of our interests attaching to small agricultural production we must urgently realize the principle that we will give preference only to incomes based on one's own work; we must eliminate that deriving from outside manpower. Moral and political behavior have an important role in this, in addition to economic tools and taxation.

## Future Prospects

In regard to the future of small agricultural production--on the basis of a weighing of various economic and social conditions--we might make the following chief observations:

1. A reduction in the relative role of small production, in its share in total agricultural production, is a natural and lawful phenomenon. But this does not mean that the volume of small production must necessarily decrease

or decrease to a large degree. According to our calculations the total production value of small production to be expected by 1985 may increase by a few percentage points as compared to the average for the years 1971-1975.

2. The changes in the overall production of small production will appear as a function of very different branch growth rates. One can expect growth in a few branches (for example, green vegetables, fruit, rabbits, etc.) and a reduction in production in plow-land grain production and cattle raising; in the case of swine raising it is probable that the production level will be maintained.

3. The growth differentiated by branch will result in the specialization of small production, specialization in the direction desired from the viewpoint of the national economy. The annual output of small production is equivalent to the work of about 300,000 to 320,000 active workers. The overwhelming part of the fixed assets of the small farms, worth 50 billion forints, cannot be regrouped to another sector. The development of their assets may be small, but the source of this is almost exclusively the personal income of the populace, or rather the savings from this income.

4. It is indicative of the investment saving effect of the production of the small farms that the assets needed for one hectare of large scale green vegetable production amount to 30,000-50,000 forints, 1[illegible]0,000-350,000 forints for one hectare of fruit and 200,000-250,000 forints for one hectare of grapes. Despite the planned moderation of sector [illegible]ge the cow stocks of the small operations will be fewer by about 55,000-60,000 units in the Sixth Five-Year Plan, the replacement of which in itself will require the investment of 4 billion forints on the large farms. Every 10,000 tons of pork produced in small operations is equivalent to a large operation investment saving of 800 million forints, every 10,000 tons of poultry to a saving of 400 million forints, or the postponement of this to a later time.

5. Maintaining small production--and increasing it in a few branches--is an important condition for supplying the populace. Despite the decrease in production for self-supply the small farms provide one-half to two-thirds of the family needs for a number of products. The increase in the ratio of commodity production is a consequence of the operational specialization of production and the branch growth which accompanies necessary technological development. The linking of the small farms to organized production moderates spontaneity, and more and more elements of socialist planning are spreading to the sphere of small producers too.

6. The income sensitivity of small production and the possibility and necessity of economic integration increase with the strengthening of commodity production, and the demands made of economic regulation change too. Thus more attention than before must be paid in the guidance of agriculture to the unique interest system of the small production sphere and to creating a harmony between the production sphere and social questions.

7. The minimal condition for attaining the production and commodity supply planned for the Sixth Five-Year Plan is to maintain in the chief branches the profitability positions which have developed as of today. Without this our prescriptions cannot be regarded as realistic or well founded. Encouraging small production is a long-term obligation both economically and politically. That reproduction process, in which the small producers reinvest in production a suitable part of their current receipts and personal income, can be maintained only if the degree of economic incentive does not decrease and if the political statements made in connection with small production leave no doubt that we regard the small agricultural operations as an organic part of our socialist economy for a long time to come.

## FOOTNOTES

1. This study is a slightly modified version of an article I prepared at the request of the Financial Main Department of the National Planning Office for the committee of experts working under the title "The Role, Magnitude, Regulation and Development of Activity Carried Out in the Secondary Economy." The debates which took place in this committee of experts greatly aided in a clearer expression of my position and encouraged me to make it public. Without going into detail I should note that I do not consider the concept of a "secondary economy" or "secondary distribution" suitable for an exact approach to or interpretation of the problem of small production or small agricultural production therein. It is enough to note that the expression "secondary economy" does not distinguish between income acquired by work and income acquired without work, so its use in economic analyses is not possible. This debate also called my attention to the fact that small agricultural production has a few specifics which could be useful in the course of organizing small production in other branches. These, briefly, are the following:

   1. The basis of small agricultural production is extra work in addition to the chief occupation.

   2. This activity is widely accessible; it is not monopolized.

   3. It functions with uniform and centrally regulated and controlled expenditure and final product prices under conditions of a strict economic competition situation.

   4. Shortage management in trading the products has essentially ended, in regard to purchases and sales alike, and this has also ended the possibility of acquiring extremely high incomes and of doubling the price level.

   5. Integration forms of varying strictness are spreading in the organization of trade as a result of which the socialist planned nature of small production is strengthening further.

2. Tamas Kolosi: "Secondary Economy and Social Structure," manuscript, October 1979.

3. This problem has been largely solved since the study was prepared.

4. It is worthy of note that in all socialist countries where small production has a relatively large significance, the foodstuffs supply difficulties double the foodstuffs market. For example, in most socialist countriesthere is, in addition to state foodstuffs trade, a free market (in a few countries it is called the kolkhoz market, according to local usage) the products, supply level and especially price level of which differ radically from those of state trade. A characteristic example of this is that the price of meat on the kolkhoz market "bazaar" is twice what it is in the "magazin" although it is also true that the supply of meat in the "magazin" is very bad. This phenomenon almost justifies and supports that dialectic link which exists between the balanced and consolidated position, but not a monopolistic position, of the small producers on the one hand, and the balance of supply and demand on the other.

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POLAND

# LEGAL ASPECTS OF WORKER PARTICIPATION IN MANAGEMENT EXPLAINED

Warsaw ZARZADZANIE in Polish No 6, Jun 80 pp 2-6

[Article by Ludwik Bar, Institute of State and Law of the Polish Academy of Sciences]

> [Text] The principle of worker participation in the management of state enterprises has been endorsed as a principle of constitutional law and as an integral feature of our political system. This endorsement was made by the Sejm of Poland on 10 February 1976 under the terms of Article 13 of the Polish Constitution which states that, "Workers employed in enterprises are to participate in the management of their enterprises." Thus, a principle has been written into the Polish Constitution which has always been regarded, since the very inception of people's power, as one of the underlying principles of the construction of the socialist state, i.e., the principle which acknowledges the right of the working masses to participate in the management of national affairs. In terms of organizational arrangements, this principle has been put into practice in various ways; one of the ways in which this has been accomplished is worker participation in the management of state enterprises. We have invited Prof Dr Ludwik Bar of the Institute of State and Law of the Polish Academy of Sciences to discuss this highly important issue.

Putting the principle of worker participation in management into practice proceeded at a slower pace in state-owned enterprises than it did in locally administered state organs. The difficulties attending this process were numerous and manifold. The state-owned enterprises went into operation almost immediately after they had been created. The postwar economy was managed along highly centralized lines. This meant that all decisions on important issues were made for the most part by the central government and its regulatory agencies and then passed on to the enterprises to be carried out. Consequently, workers employed in state-owned enterprises were taken into account only as the recipients and executors of directives issued by regulatory agencies.

The Decree on the Formation of Plant Councils dated 6 February 1945 (DU [Dziennik Ustaw] No 8, item 36) was supposed to signal the start of the process dedicated to the implementation of the principle of worker participation in management. To some extent the Decree on the Formation of State Enterprises dated 3 January 1947 (DU No 8, item 42) also made allowances for public participation in the management of these enterprises in the form of citizens' oversight councils. However the increasingly centralized management of the economy made it impossible as a practical matter to convene these councils. And by the time the Decree on State Enterprises (DU No 18, item 111, 1950) was issued on 26 October 1950, a law which has remained in force to this day, there was no mention at all about citizens' oversight councils or about worker participation in management. But in 1956 the workers made demands calling for the realization of their lawful right to participate in management, and on 19 November 1956 the Law on Workers' Councils (DU No 53, item 238) was passed, a law which was superseded by the Law on Workers' Self-Management dated 20 December 1958 (DU No 77, item 397). Worker participation in the management of enterprises was legally sanctioned in the form of the institution of workers' self-management. To be sure, this institution was not set up in all state-owned enterprises, but as the years went by it eventually became an important factor in the development of social relations.

However, the organizational structure of the institution of workers' self-management ratified by the 1958 law could not keep pace with the rapid and far-reaching changes taking place in industry under the influence of the scientific and technological revolution. The concentration of industrial production, the creation of manufacturing and construction combines and the development of large-scale economic organizations necessitated changes and readjustments in the structure of worker's self-management. But, instead of moving in this direction, the central government issued directives in December 1969 that were accompanied by instructions which in practice made it possible for the combines to ignore the provisions of the law on workers' self-management. This then amounted to a major setback as far as the realization of worker participation in the management of enterprises was concerned, since combines are in fact large-scale enterprises.

The events of 1970 once again reminded us and made us aware of the great importance of the principle of public participation in the management of national affairs and of our duty to put this principle into practice in state enterprises. Consequently, the resolutions of the Sixth PZPR Congress came out strongly in favor of promoting workers' self-management and giving it a broader role in the management of the economy. In turn the resolutions of the Seventh PZPR Congress backed up and reaffirmed the guidelines set forth by the Sixth PZPR Congress concerning workers' self-management.

We have enumerated the legal acts and the resolutions of the PZPR congresses that are indicative of the official actions and measures taken by our national political leaders in this area. But there is more to it than this. It should also be noted that during the past 35 years of socialist construction in Poland the workers themselves have become increasingly aware of the principle of worker participation in the management of state enterprises. They have displayed a keen interest in this principle and they regard it as a means to the realization of socialist democracy in state enterprises, which are viewed not only as production and service organizations, but also as communities of working people, key factors in the development of socialist social relations. The Sejm of Poland has rated these gains as affording sufficient grounds for recognizing worker participation in management as a basic principle of our form of government, a principle which should be written into the Polish Constitution.

The principle of worker participation in the management of state enterprises has been recognized as a basic principle of our form of government and, as such, it was written into the Polish Constitution on 10 February 1976. That was 4 years ago. It is essential that we should pass a law aimed at the further development of this principle so that we can delineate the basic organizational structure and organizational-legal frameworks of worker participation in management and the scope of its functions, rights and duties. The things that have been accomplished so far in terms of the statutory regulation of this institution do not go far enough. Thus, the laws and other acts passed in 1978 ought to be regarded as provisional measures, i.e., provisional until such time as the Sejm passes a law regulating the legal status of the institution of worker participation in the management of state enterprises. At that time the law of 1958 will have been superseded once and for all. For, as things now stand, this law is still in force and there is no way it could have been overridden as a result of the issuance of the directives of the Central Council of Trade Unions in 1978 on the by-laws of workers' self-management councils.

Since it has been pointed out that the implementation of the constitutional principle of worker participation in the management of state enterprises requires legislative validation, reasons must be cited to prove this. Therefore, it should be pointed out that what we are talking about is the statutory regulation of the ways in which workers exercise their rights and duties to participate in management, hence, the realization of the constitutional principle of socialist democracy in state enterprises. This is a subject matter that falls within the purview of the Sejm, and it is the Sejm that will resolve this matter by legislative means. This subject matter cannot be regulated by any lower-ranking legislative body or by any act of administrative law.

It should be noted that the problem of the statutory regulation of worker participation in the management of state enterprises was deliberated upon while work was under way on a draft law on state enterprises. At that time various options were being mapped out in an attempt to resolve this problem. Consideration was given to a proposal for incorporating provisions on the participation of workers in management into the law on state enterprises. It was noted that since issues related to the management of state enterprises will be regulated under the terms of this law, the question of worker participation in management ought to be regulated by the same law.

While work was under way on the drafting of this legislation an alternative proposal was advanced that did not tie the statutory regulation of worker participation in management to the draft law on state enterprises. Instead the proposed changes were geared more toward the amendment of the 1958 law on workers' self-management or toward the passage of a new and completely separate law. Reference was made to the need for continuity with existing statutes. Finally, the view was expressed that work should begin on the drafting of a law which would regulate worker participation in the management of all socialist institutions, i.e., not just in the management of state enterprises. Thus far, none of the aforementioned proposals have been written up in the form of a draft law.

Prompt action needs to be taken to provide for the statutory regulation of this problem. It is necessary to decide on a way to achieve this goal as quickly as possible. But regardless of the kind of law according to which this problem is going to be regulated, it is essential that provisions be made under this law for solutions which will really promote the practical realization of the principle set forth in Article 13 of the Constitution.

Let us recall that this principle is worded as follows: "Workers employed in enterprises are to participate in the management of their enterprises." Let us reflect for a moment on the meaning of this important sentence.

The first word of this sentence--"workers"--signifies that:

--we are talking about all employees of state enterprises, regardless of the kinds of jobs they perform;

--the workers are represented by a general meeting of all enterprise employees or, if the enterprise has a large workforce, by meetings of delegates elected by the workers;

--we are talking here about the actual workers and their delegates, that is, not about societies, organizations or clubs which are active in a given enterprise and whose members happen to be employed in that enterprise.

The term "enterprise" refers to:

--all enterprises, regardless of the type of activity they are engaged in, and regardless of their organizational configuration, i.e., not just those enterprises covered by the 1958 law on workers' self-management;

--not only those enterprises that were intended to be covered by the 1958 law, but also other state economic organizations listed in the registry of state enterprises, provided that their real activities are intrinsically similar to those carried on by business enterprises, meaning that in some cases the associations can also be regarded as enterprises.

Worker "participation" in management means that:

--the workers have a right and duty to participate in management regardless of whether they express a desire to do so and regardless of the position taken on this matter by the management staffs of enterprises and by the higher-ranking organs that regulate these enterprises;

--no one has the right to hinder the workers in the exercise of their rights and duties to participate in management, rather all state organs and the management staffs of all state enterprises are supposed to assist, advise and support the workers in the exercise of these rights and duties.

The phrase [participation] "in management" should be interpreted to mean that:

--workers participate in all phases of the management process, meaning that they should take part in the development, planning, organization and supervision of production activities and in the evaluation and auditing of the performance of the enterprise and of its management staff;

--this participation should take the form of consultation, decision-making and control.

The proper interpretation of Article 13 of the Polish Constitution will result in the formulation of a regulatory statute which will first and foremost:

--make it possible for workers to express their opinions in all forums where decisions are made on enterprise business affairs;

--encourage state enterprise employees to take a personal interest in the business affairs of their enterprise, especially in the case of those business affairs related to economic management, the fulfillment of tasks involving the satisfaction of public needs, the quality of goods and services, and so on;

--tend to eradicate conditions conducive to the persistence of the antiquated notions which draw a distinction between "us" (the workers) and "them" (the enterprise and its management staff);

--get the workers and their authentic representatives involved in all phases of the management process, i.e., in the formulation, planning, organization and supervision of the fulfillment of tasks and in the evaluation and auditing of their enterprise's performance record--as equal partners with the management of the state enterprise;

--serve to raise the consciousness and sense of duty of the workers when it comes to their shared responsibility for conducting the affairs of a state enterprise.

The organizational and legal frameworks of worker participation in management should be flexible in view of the organizational and economic diversity that exists among state enterprises, and also in view of the differ levels of vocational skills and civic mindedness among the workers employed in state enterprises.

The political principle of worker participation in the management of enterprises as set forth in Article 13 of the Polish Constitution permits us to come up with the following definition of the organizational and legal framework of this relationship:

1. In the management of plants that form a part of a multiplant enterprise and in singleplant enterprises provisions will be made for the participation of:

--general worker meetings or, if the workforce of a given plant or enterprise is too large, meetings of delegates elected by rank and file enterprise employees;

--a workers' self-management conference, consisting of workers' councils elected by rank-and-file employees, plant councils, trade unions, and PZPR committees.

2. In the management of multiplant enterprises, and hence of combines as well, provisions will be made for the participation of:

--a workers' self-management conference made up of representatives of plant party organizations, and representatives of plant trade union councils;

--a presidium and a series of task-force committees elected by the workers' self-management conference.

3. In the management of associations of state enterprises provisions will be made for the participation of:

--an association board on which seats will be held, with the right to cast tie-breaking votes, by representatives of workers from all of the association's affiliated organizational components; the chairman of the board will be elected by the board itself or appointed to this post by a higher-ranking regulatory agency from a pool of candidates who are not employees of this agency.

The scope of worker participation in management needs to be examined in two stages. First of all, it is necessary to consider the general scope of this participation, and then we should proceed to an examination of the problem of the division of authority among the workers and their respective organs.

The general scope of worker participation in management should be the same for all enterprises, since all workers possess equal rights and duties in conformity with Article 13 of the Constitution. However, in certain types of enterprises it may be possible to draw distinctions between the kinds of powers conferred upon general worker meetings or worker delegate meetings, workers' self-management conferences and their presidiums and committees so as to endow each of these units with the kinds of authority that they will be able to exercise in a satisfactory manner and for the good of their respective enterprises. In an age dominated by automation, computers, electronics and other similar management tools the status of workers in their enterprises is becoming highly diversified, and this is bound to have an impact on the division of authority when it comes to worker participation in management.

Proceeding from these assumptions, we can now go on to discuss the catalogue of problems in the handling of which provisions ought to be made for the direct or indirect participation of the workers. This catalog comprises a list of issues that ought to be handled within the workers' sphere of authority. However, this listing is not meant as an attempt to assign the handling of specific issues to specific worker organs. This should be done by the workers themselves through the adoption of their own statutes and by-laws.

--Right of Petition

Both the workers, as a collective body and as individuals, and their official organs are entitled to submit petitions and proposals to the management staff of state enterprises concerning all matters affecting the business of a plant, enterprise or association.

Petitioners should be entitled to receive a reply within 30 days informing them of management's response to their initiative.

--Advisory Rights

The workers, acting directly or through their designated official organs, have a right and duty to give advisory opinions on matters such as the following: the appointment of enterprise directors, enterprise policymaking, decisions on the sharing of workloads among the organizational units that make up a given enterprise, proposed organizational changes, the procurement of raw materials, the marketing of finished goods, the rendering of services, production technology modifications, the raising of worker skill ratings, the advancement of the drive toward greater production efficiency, the fostering of conditions conducive to the development of new products and services and the promotion of technological progress, the awarding of state prizes and medals, and the rendering of advisory opinions concerning agreements with other branches of industry and other agreements entered into with state and cooperative economic organizations, as well as with national councils and local governmental agencies.

--Decisionmaking

Acting directly or through their elected representatives, the workers should have the final say on, or a voice in, the making of decisions on certain issues. Careful consideration needs to be given as to whether this category of issues might cover such matters as work rules and regulations, making policy changes that conform to enterprise conditions and capabilities, annual and long-term work plans and development objectives, the allocation of internal funds for capital spending purposes, the examination of annual financial statements, the approval of annual fitness reports on the performance of enterprise managers, the examination of reports submitted by management on a regular basis concerning the enterprise's performance and condition; rules and regulations governing work scheduling, boosting of labor discipline, improving the efficiency of technological processes, enhancing the quality of goods and services, the conservation of materials, and the protection and proper use of social property; activities aimed at fostering socialist interpersonal relations; the introduction of new work norms (norms that are technically feasible); and making provisions for greater discipline when entering into and carrying out contracts.

The scope of worker decisionmaking and codecisionmaking authority should embrace both the formulation of guidelines concerning matters related to the enforcement of collective bargaining agreements, work norms and wages, defining the rules that are to govern internal cooperation among various organizational units and the rules governing the internal clearing of accounts between different organizational units, the setting up of model shops, service infrastructures and scientific research departments, and the settlement of disputes between different organizational units and also matters related to cooperation and the payment of debts, the adoption of resolutions concerning threats to the fulfillment of plan tasks and financial problems, the election of workers' representative bodies, the submitting of inquiries to management concerning the state of the enterprise, the fulfillment of the plan and other tasks, working conditions and the meeting of worker needs for social services and basic necessities, and the review of management replies to these inquiries.

--Control

The workers and the organs elected by them should exercise control [performance review] powers in matters related to the activities of their enterprise and its management personnel, especially so when it comes to insuring proper working conditions and meeting worker needs for social services and basic necessities, the fulfillment of plan tasks, questions of materials and financial management, the protection of social property, the enforcement of existing work and wage norms, the utilization of social, cultural, educational and athletic facilities and other facilities designed to promote the drive for greater production efficiency and the development of new products, the apportionment of work assignments among different organizational units and procedures governing the settlement of accounts among these organizational units, and the implementation by management of resolutions adopted by the workers and their elected organs.

--Participation in Management and Accountability

The organizational rules of public life demand that individuals and groups of individuals that hold public office should be held accountable for their actions. This is a subject that no one is talking about, and the questions that arise in this regard are numerous, e.g., how are we to define the accountability of individuals who become members of collective bodies, what is to be the nature of this accountability, i.e., are the persons held so accountable subject to civil, criminal, administrative or other penalities, should we be afraid that this kind of accountability might cause workers to shy away from participating in management, or what is the status of the manager who is responsible as an individual for the fate of the enterprise?

The Settlement of Disputes Between Workers and Their Organs and Management or Higher-Ranking Regulatory Bodies

Even in situations where workers and the management of a given enterprise are cooperating harmoniously it has to be expected that disputes may arise from time to time. It is therefore necessary to consider the question as to what kind of organ would be best suited to preside over the settlement of these disputes. Naturally, we are talking about an organ which would not violate the maxim "nemo iudex...." [nemo iudex idoneus in sua causa: no man is a proper judge of his own case]. Among the existing state organs the State Economic Arbitration Board would be most suitable for this purpose.

The problem of finding legal means to promote the constitutional principle of worker participation in the management of state enterprises should be opened up to a general public debate. The comments and views presented in this article are intended solely to call attention to certain aspects of this problem. This article was mainly concerned with enumerating the legal ramifications of this problem that must be taken into account in any such public debate.

11813
CSO: 2600

## DRAFT PLAN FOR REFORM OF FINANCIAL SYSTEM OUTLINED

Zielona Gora GAZETA LUBUSKA in Polish 27 Aug 80 p 3

[Article by Roman Lencewicz: "The Bank As Partner of the Manufacturer"]

[Text] The Ministry of Finance has drafted a plan of measures for streamlining our economy's financial system. According to this plan, achievement of efficiency is to be forced primarily with the employment of financial instruments: credit, interest, taxes, and standards. Money should comprise a reflection of an unequivocal measure of performance efficiency on the part of enterprises and entire sectors of the economy. Plans call for such a state of affairs to be achieved as a result of adoption of the monetary unit as basic point of reference in planning and in figuring production performance both on a national scale and at the level of each enterprise. This of course means a radical reduction in the number of indicators prescribed by directive, imposed on enterprises, from more than 200 which currently apply in certain subbranches, to only a few. The state list of planning-clearing directives will contain a list of indices which cannot be arbitrarily enlarged. Value or quantity of production (sales), export and import (in a like interpretation), capital spending limit, production quantity on certain product items of key importance to the economy, wage fund share of sales value indicator, deductions to bonus fund, rate of depreciation and taxes -- these are essentially all central control instruments proposed for the present time.

Thus the aim is clearly to focus enterprises toward yielding a profit, and at the same time toward coordinating their activities with the requirements of the market and the entire economy. An income tax is to be introduced, with the aid of which the state budget will take away all undeserved profit, resulting, for example, from incorrect pricing or product mix manipulation. In order to provide manufacturers with incentive to achieve the most profitable performance, it is planned to make all enterprise funds -- bonus, development, technological advance -- dependent on production performance profitability.

Such a solution, which has long been demanded by many of our economists, requires first and foremost implementing cost accounting and standardizing the monetary unit, since at the present time the zloty given out in wages possesses a different value from that spent on capital investment, not to mention changes in the foreign-exchange zloty. For this same purpose it is planned to eliminate all surcharges and subsidies (this does not apply to agricultural production), which are so numerous at the present time, with sale prices based on prime cost plus standardized profit, and even based on world prices in some subbranches. Maintaining financial regulations in force over a multi-year period is a natural means of providing incentive to managerial personnel and work forces to achieve improvement in production activities, achieving greater production efficiency and effectiveness. Therefore all financial standards and parameters will apply for a five-year period.

The proposals drafted at the Ministry of Finance have the following logical sequence: money (for wages, capital investment, development) will be able to be obtained only by working honestly and conscientiously. Thus the right to growth and development will depend on financial performance. All funds must be generated, but whoever has accumulated funds cannot lose them as a result of arbitrary administrative decisions. The purpose of this is to promote initiative, incentive, and efforts at economical management.

The role of banks will increase immeasurably in a reformed national financial system. These institutions, which at the present time distribute funds in a rather mechanical manner, will in the future become not only the absolute monitor of observance of the law and good management but also an economic partner of each manufacturer. Credit will be extended on a new basis for capital investment and for financing working capital: enterprises doing a good job will be offered a reduced interest rate on credit, average-performance enterprises will pay a higher interest rate, while those enterprises which produce a poor performance over an extended period of time will be refused credit. Such a credit refusal is a vote of no confidence for management. If this rule is adopted, we can expect the following results: an end to "pressure" on capital investment, since the bank will not simply grant loans. In practice it will become very difficult to exceed the payroll fund without additional production, since the bank will be monitoring an enterprise's current financial situation.

Of course what this entire document contains is draft decisions, the substance of which requires additional discussion and debate among experts. The most important elements -- and beyond debate -- are the basic premises: earnings and profits can be based only on socially useful labor, while efficiency must become a measurable, verifiable quantity. Only in this manner can both money and honest labor regain their value.

3024
CSO: 2600

# FUEL, POWER SITUATION, OUTLOOK DISCUSSED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 26-28 Jul 80 p 2

[Article by Radmila Jovanovic: "(Forced) Economizing Should Be Expected"]

[Text] The production and consumption of fuel are at serious variance with each other due to the fact that the plans of development are not being realized. More national consumption is needed on account of limited hard currency and the state of the world market which make impossible the purchase of much needed fuel.

The increasingly unchecked rise in the price of raw materials and oil on the world market has placed energy among the priorities during this medium-term period. The objective was quite clear: as the moving force of further economic development, energy has to lead the way.

In the 5-year period coal production was supposed to increase from 35 million to 55 million tons, electric power from 39.9 billion to between 65 and 70 billion kilowatt-hours, and the refining of oil (domestic and imported) from 12.5 million to 18.5 million tons. Planned coal production should have made possible the faster substitution of mazut as energy-producing fuel and in the refining of oil it should have brought about an increase of white derivatives over black derivatives.

Domestic production of natural gas was to increase from 1.6 billion to 3 billion cubic meters, and total consumption from 1.6 billion to 6 billion cubic meters. In this last year of the medium-term plan it can be stated that the production and the possibilities for importing fuel have never been so far from meeting consumer demands. The conclusion is very simple: if we want to get out of this situation permanently then everyone should do his best this year and in the next several years to increase production and commit himself to more rational consumption. This year, instead of producing at least 51.5 million tons of coal, we shall have 47 million tons at best. Thermoelectric power plants will have enough low caloric lignite, but industry and ordinary consumers will lack brown coal. Stepped-up development of coal mines, especially pit mines, is still only a promise. Although none has any accumulation of funds to invest in his own development, few energy users have pooled their funds to get higher production of coal. Neither banks nor consumer users have fully supported the recommendations of the Federal Executive Council [FEC] for faster development of coal mines.

Although they want to supply themselves in the summer months with coal and thus avoid the rush during the peak period of energy use, industry and consumers cannot do it. Already there is a coal shortage. The FEC has done its part, but others have not; banks and consumers also in this medium-term period have invested in needed and unneeded projects without certainity of a fuel supply.

It is estimated that industry and consumers will be short this year by several million tons of brown coal.

### The 'Don't Worry' Attitude

The REIK "Kolubara" is ready to begin construction of a drying plant that would have a capacity of 850,000 tons of lignite, which has the average caloric value of brown coal, and which can therefore be used by industry and the general public as a substitute. Although the plant has been under construction for 2 years now, "Kolubara" is not making any progress with it since they themselves do not have enough money. This collective has all the necessary documentation for two more drying plants and for the production of enough semicoke to replace 30 percent of coke imported by ferrous metallurgy. The blueprints are "on ice", though, since there are no users who can think ahead and supply funds to realize these programs.

Had the banks a year ago understood the situation brown coal mines in Yugoslavia and had they, at the recommendation of the FEC, invested 7 billion [dinars] to develop the mines, this year they would have at least 1 million tons more of brown coal. The way it is now many coal mines work at reduced capacity since they have no funds even to import spare parts.

Many people do not renounce idleness even now when problems are obvious and when they are creating shortages in all sorts of things which directly affect the basic standard [of living]. For instance, railroad trains in these summer days, before the harvest season, still run an average of 4.5 km per hour from loading to unloading; what is more, with their disorganization they have made coal supply more difficult.

The availability of foreign exchange is so limited that it is certain we will be short 7 million tons of mazut, which is the amount consumed last year. There will probably be oil shortages even for the petrochemical industry. The petroleum industry and consumers act as if they were playing economics. In spite of the fact that the price of oil increased 3 times within the last 5 years they still rely mainly on mazut. This year it will be possible to obtain 15 million tons of oil at best, yet the capacity of refineries is 23.5 million tons where more black than white derivatives are still being produced.

### One's Own Strength

It is estimated that there will not be mazut for thermoelectric power plants with a total generating capacity of 1,523 megawatts. There will not be enough heating oil for general consumers nor enough diesel fuel. Measures the FEC took last year to prohibit construction of buildings which use mazut [for heating] and the expected reduction in the heating season for homes and public buildings will ease the situation. This, plus better economizing and more rational consumption, needs the support of all consumers.

Natural gas cannot substitute for the lack of fuels even though domestic production has been ready for some time now and a long-term foreign supply has been secured. Only about 4 billion cubic meters of gas will be consumed this year since construction of the gasline in Serbia proper has barely begun.

For a long time now the Association of the Yugoslav Electric Power Industry has warned that it will not be able to meet even average consumption needs, let alone make up for the decreased supply caused by shortages of coal and heating oil, as well as by inclement weather, if new electric power plants continue to be built so slowly and with so many interruptions.

Only 62.5 percent of the capacity planned for this medium-term period has been constructed so far. Only good weather conditions and an exceptionally good water situation have compensated for construction delays up to now. But reason cannot rely on luck any longer.

At least 61.7 billion kwh will be needed this year, but not more than 59.7 billion kwh will be produced.

It is easy to draw a lesson from this situation. Since there is no hard currency we must make do with what we have, spending rationally and only as much as we have to. Everyone must do his share of work not for the purpose of "getting under the blanket and pushing others out" but in order for all to share equally in the distribution of goods in short supply.

9630
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## NEWSPAPER CIRCULATION, FIRST HALF OF 1979, 1980

Belgrade NASA STAMPA in Serbo-Croatian Jul-Aug 80 p 8

[Text]

| | Copies Printed | | | Copies Sold | | |
|---|---|---|---|---|---|---|
| Socialist Republic of | 1979 | 1980 | Ind. | 1979 | 1980 | Ind. |
| Bosnia-Hercegovina | | | | | | |
| OSLOBODJENJE | 85,214 | 95,082 | 112 | 72,043 | 80,630 | 112 |
| SARAJEVSKE NOVINE | 18,435 | 20,203 | 110 | 14,317 | 16,511 | 115 |
| Montenegro | | | | | | |
| POBJEDA | 18,784 | 21,165 | 113 | 16,622 | 18,784 | 113 |
| Croatia | | | | | | |
| VJESNIK | 90,903 | 97,618 | 107 | 72,528 | 80,136 | 110 |
| VECERNJI LIST | 282,486 | 293,456 | 104 | 250,104 | 260,662 | 104 |
| SPORTSKE NOVOSTI | 159,655 | 147,494 | 92 | 129,955 | 115,673 | 89 |
| SLOBODNA DALMACIJA | 67,242 | 71,765 | 107 | 60,613 | 62,973 | 104 |
| N. LIST I GLAS ISTRE | 64,848 | 69,899 | 108 | 57,779 | 60,984 | 106 |
| GLAS SLAVONIJE | 14,314 | 15,776 | 110 | 12,127 | 13,569 | 112 |
| LA VOCE DEL POPOLO | 3,444 | 4,218 | 122 | 2,435 | 3,144 | 129 |
| Macedonia | | | | | | |
| NOVA MAKEDONIJA | 36,587 | 33,996 | 93 | 30,344 | 27,885 | 92 |
| VECER | 30,943 | 32,799 | 106 | 26,611 | 27,486 | 103 |
| Slovenia | | | | | | |
| DELO | 97,625 | 103,062 | 106 | 92,620 | 97,154 | 105 |
| DNEVNIK Ljublijana | 57,554 | 54,751 | 95 | 55,115 | 52,090 | 95 |
| VECER Maribor | 58,696 | 60,485 | 103 | 55,425 | 57,020 | 103 |
| Serbia | | | | | | |
| BORBA | 51,366 | 60,984 | 119 | 38,524 | 41,042 | 107 |
| VECERNJE NOVOSTI | 366,073 | 378,233 | 103 | 322,145 | 326,267 | 101 |
| SPORT | 118,019 | 116,104 | 98 | 96,775 | 85,791 | 89 |
| POLITIKA | 300,358 | 309,326 | 103 | 266,039 | 271,176 | 102 |
| EKSPRES | 272,477 | 269,240 | 99 | 244,244 | 233,216 | 95 |
| PRIVREDNI PREGLED | 14,939 | 16,957 | 114 | 14,939 | 16,957 | 114 |
| NARODNE NOVINE | -- | -- | -- | -- | -- | -- |
| Kosovo | | | | | | |
| RILINDJA | 34,415 | 37,923 | 110 | 30,044 | 32,235 | 107 |
| JEDINSTVO | 8,879 | 10,312 | 116 | 7,557 | 8,086 | 107 |
| Vojvodina | | | | | | |
| DNEVNIK | 30,383 | 32,560 | 107 | 25,671 | 26,446 | 103 |
| MAGYAR SZO | 32,271 | 32,261 | 100 | 28,637 | 27,810 | 97 |

CSO: 2800

## YUGOSLAVIA

### CROATIAN ECONOMIC CHAMBER ALARMED OVER DETERIORATING SITUATION

Zagreb VJESNIK in Serbo-Croatian 17 Sep 80 pp 1, 14

[Excerpt] The economic policy measures, it is said in the Croatian Economic Chamber, in fact are threatening the effectiveness of the domestic economy.

Something must be done! This is the statement of business people in regard to the latest analysis of economic trends in the past 250 days...Is it a question of a possible crisis of concepts and of actual stabilization solutions, or of a crisis of economic policy or perhaps of outmoded development strategy which is being artifically kept alive with the help of a handful of administrative aids?

What is one to say after the meeting of the executive council of the Croatian Economic Chamber where very skeptical prognoses were heard about the economic trends to the end of this year throughout the country, as well as in this republic, if everything remains as it has been in the whole system of social reproduction? What is one to say, for instance, after the statement made by Milan Rukavina-Sain that this year is marked by a large increase in exports but that the effect of this on the economic and political position of associated work is almost negligible?

What is one to say after the assessment made by the president of the Chamber that the present economic system in the domestic market and the very measures of economic policy are seriously threatening the effectiveness of economic operation, in restricting the possibility and all interest for associating which is the basic postulate of the new economic system? What is one to say about the present situation in regard to the proclaimed unity of the Yugoslav market which in fact is largely dominated by the tested system of transferring one's own failures and problems to others through extortionist prices, speculation regarding supplies, fictitious pooling of hard currency, etc.

As someone said, if 99 percent of the agreements on pooling foreign exchange are nothing more than pure violations of law, doesn't this mean that something is wrong with the regulations? A similar logic could be transferred to the whole area of social reproduction where the main sources of instability also flow from the present method of forming and using capital accumulation, i.e., of financing investments. The administrative solution of economic difficulties has not essentially changed anything this year either.

## Payments Deficit, Limit of Growth

Thus it is not especially surprising that priority economic branches are in the worst economic situation, that production is stagnating, for instance, in the large economic centers of Croatia, that prices are eating up all the positive effects of devaluation, that the standard of living is falling, that public and social service expenditures are being taken from the income of the economy, and finally that the self-management economic system, as Izak Druter says, does not have realistic conditions for functioning effectively.

The latest data from the Yugoslav market show that up to the end of August the increase in industrial production was below the plan, that exports were actually 12 percent more and imports 11 percent less, that the payments deficit in foreign trade was about $900 million more than planned for the first 8 months of this year. In Croatia the situation is similar if not even more difficult than in other republics, although exports increased by more than 15 percent, while imports declined by the same amount, the payments deficit was $135 million more than planned for the last 8-month period. Especially stressed in this are the questions of supplying the economy with imported and domestic producer goods, energy, consumer goods, etc.

## Larger Area for Maneuver

Business people in the Republic Economic Chamber suggested that the most urgent measure to be taken now is to make it possible in the fourth quarter of the year for 5 percent more import applications for producer goods to be made at the National Bank above that permitted by payments possibilities, because otherwise all applications cannot be processed in this period. This would create a larger area for maneuver, i.e., enable an increase in imports and thus maintain industrial production and employment at the present level. The second demand is that through the end of the year the National Bank accept advance import applications for producer goods to be imported in the first part of next year so that production will not stagnate. Also sought is freer price formation, an analysis of costs everywhere, more flexible measures to protect the domestic market, and a consistent policy on a realistic rate of exchange for the dinar.

It nevertheless appears that economic organizations have been so oppressed by current economic difficulties that planning preparations for their development in the next 5-year period have taken a secondary place, however much it has been stressed that there can be no stabilization over the long term without long-term solutions contained in the new five-year plan for the country.

CSO: 2800

## BRIEFS

YUGOSLAV ENTERPRISES IN ANGOLA--A Joint Economic Representation was recently founded in Angola composed of foreign trade and other work organizations from Yugoslavia which are operating in this friendly non-aligned African country. Those attending the founding meeting of the representation were delegates from the following foreign trade organizations: Astra (Zagreb), Brodokomerc (Rijeka), Geneks (Belgrade), Jugoeksport (Belgrade), Progres (Belgrade), as well as representatives from the Dunav-Tisa-Dunav work organization, (Novi Sad), The Belgrade Agricultural Combine, the "Splosna plovba" enterprise for international maritime transport (Piran), Energoprojekt, and other work organizations throughout Yugoslavia which offer technical assistance to Angolan state enterprises. [Text] [Sarajevo OSLOBODJENJE in Serbo-Croatian 7 Sep 80 p 5]

SMALL BUSINESS LOANS--The International Finance Corporation has granted a $32 million loan to a consortium of the eight largest banks of Yugoslavia as a contribution to a program for expanding small business. The International Trade Bank of Frankfurt, Germany, will contribute about $6 million to this credit. [Text] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 1 Sep 80 p 9]

KOSOVO AGRICULTURE--This fall Kosovo will plant 105,000 hectares in wheat, or 18,646 more than last year, as well as 5,000 hectares in sugar beets, or three times more than last year, which is expected to adequately meet the needs of the sugar mill in Pec. This year's fruit harvest, estimated at 5,700 carloads, or 144 percent more than last year, will enable successful use of processing capacities in the province. [Excerpt] [Belgrade BORBA in Serbo-Croatian 12 Sep 80 p 4]

BAKERS' STRIKE IN PEC--The court for legal violations of Pec Opstina has fined 19 private bakers in this opstina [10,000 dinars] for refusing to produce bread and thus causing a shortage. They had demanded from the opstina assembly that bread prices be increased beyond those stipulated in the existing decision; this demand was unrealistic and unacceptable. [Text] [Pristina JEDINSTVO in Serbo-Croatian 6 Sep 80 p 3]

ENERGY OUTLOOK--The latest report of the Yugoslav Electric Power Industry points to the high increase of 12.5 percent in electric power consumption in the first half of this year, to the fact that electric power facilities do not have needed reserves, and that only two new small thermoelectric power plants (Kostolac (210 megawatts) and Oslomej (110 megawatts)) went into operation, in this period. It says that certain mines will not be able to provide the amounts of coal needed for maximum production of power. This pertains especially to the Kosovo, Sostanj, Tuzla, and Kakanj mines which have obligations also to other consumers in the country. Thermoelectric power plants operating on liquid fuel and gas account for nearly 12 percent (1,523 megawatts) of total production capacities of the electric power industry. But their utilization is limited and uncertain because of problems in fuel supply, and there are no thermoelectric plants based on coal which could replace them on a more permanent basis. Oil imports and consumer demand have never been in greater disproportion than during this half-year period when 429,000 tons of mazut were imported, in addition to 165,000 tons of diesel fuel, and 172,500 tons of liquid gas, yet demand was not met, since 73 percent of oil derivative and gas producers were not able to satisfy demand. By the end of the year about 47 million tons of coal will be produced, or 12 percent more than last year but less than the 52 million tons planned. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 13-15 Sep 80 p 3]

ENERGY NEEDS--The Association of the Yugoslav Electric Power Industry reports that the disproportion between consumer needs and available capacities increased this year by about 500 megawatts. This will be felt particularly during the winter in Montenegro, Macedonia, Serbia and Slovenia, if consumption increases by the estimated 12 percent and water flow is below that which is needed. Reserves of fuel in electric power plants is not nearly enough to provide maximum uninterrupted operation on cold days. As of the beginning of September there were only 2,868,000 tons of coal in thermoelectric power plants which would not be enough for cold weather conditions. In order for thermoelectric powerplants to meet 48 percent of total electric power needs in the 1980-81 winter season they will have to produce 23 percent more power than last winter, but this means they will need 23 percent more coal than last year. In regard to hydroelectric power plants, they could, under very favorable conditions, meet 44 percent of consumer needs if they increased production 10 percent over last winter. But if we have 3 dry months, then these plants could satisfy only 31 percent of needs. The present decline in water flow and the using of water reserves at these plants is not very encouraging. Also needed in the coming period will be thermoelectric powerplants based on mazut for which preparations should begin now, so that they would be able to meet 9 percent of planned consumption. For the winter season, therefore, about 700,000 tons of mazut should be provided, or about twice that consumed in the first 8 months of this year. At present there are only 159,000 tons of liquid fuel in reserves of thermoelectric powerplants which is not enough for their increased use on a steady basis. It is certain that under unfavorable weather and water conditions it will not be possible to meet needs through imports of electric power from countries with which we have agreements on this. Imports will be unavoidable, it is only a question of whether it is wiser to buy mazut now or to import electric power in time of need. The present electric power situation is balanced, although water reserves in storage lakes are being gradually spent. Thermoelectric plants based on solid fuel are now operating at full force. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 23 Sep 80 p 2]

RIJEKA REFINERY BELOW PLAN--This year the oil refinery at Rijeka will process about 1 million tons less of oil than planned; 5.2 million tons of oil was planned but price increases and the oil crisis have necessitated a revision. When primary processing is reduced, secondary capacities are not adequately used, i.e., those capacities which produce the more valuable white derivatives such as paraffin, bitumen, and base oils. Rijeka produces about 92,000 tons of the approximately 250,000 tons of all base oils needs in the country; the remainder is imported. Last year 350,000 tons of bitumen was produced or 46 percent of Yugoslav production. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 23 Sep 80 p 1]

OIL AGREEMENTS--The INA-Naftaplin in Zagreb recently signed two important protocols on cooperation in gas and oil exploration and production. The protocols were signed by representatives of the AGIP Italian firm on exploration in our part and in the Italian part of the Adriatic Sea over a wide area. It includes cooperation on preventing pollution, work safety, and exchange of experiences in oil and gas exploration. Representatives of INA-Naftaplin and Naftagas in Novi Sad reached an agreement with an oil company in Angola on exploration in potential oil-producing areas of this African country comprising 4,000 square km where well-known companies from other countries will also participate. Our oil organizations will account for 10 percent of the value of the exploratory work on one of the blocs entrusted to them, since they are proving themselves in exploring for oil in Gabon (where they are working together with three German companies), in Vietnam where they are working with a German and an Italian firm, and in Iran where three of our drilling installations will soon begin operation. Work in Angola will be done in cooperation with an American and an Italian company. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 29 Aug 80 p 3]

KOSOVO WORKERS ABROAD--There are about 30,000 citizens from Kosovo working temporarily abroad. Most are from Metohija and the Pomoravlje areas in Kosovo. Last year 11,365 returned home. Of this number 973 received jobs in Pec, Prizren, Gnjilane, Urosevac, and other opstinas in Kosovo. [Excerpt] [Belgrade KOMUNIST in Serbo-Croatian 12 Sep 80 p 14]

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